

## INSTALLATION GUIDE

---

Wine Storage



## Contents

Wine Storage Equipment .....	3
Models 424 and 424FS Installation .....	4
Models 427 and 427R Installation .....	16
Model WS-30 Installation .....	30
Installation Checklist .....	54
Service Information .....	55

Features and specifications are subject to change at any time without notice. Visit [subzero.com/specs](http://subzero.com/specs) for the most up-to-date information.

**IMPORTANT NOTE:** Throughout this guide, dimensions in parentheses are millimeters unless otherwise specified.

## Important Note

To ensure the safe and efficient installation of Sub-Zero equipment, please take note of the following types of highlighted information throughout this guide:

**IMPORTANT NOTE** highlights information that is especially important.

**CAUTION** signals a situation where minor injury or product damage may occur if instructions are not followed.

**WARNING** states a hazard that may cause serious injury or death if precautions are not followed.



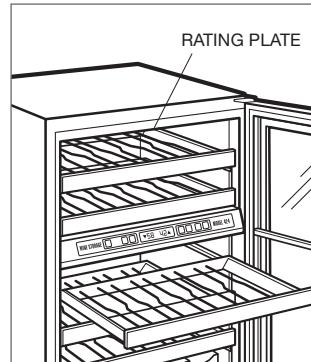
## Wine Storage Equipment

The importance of the installation of the Sub-Zero wine storage unit cannot be overemphasized. Installation should be done by a qualified installer.

Before you begin the installation process, it is recommended that you read this entire installation guide. There are key details that you should take special care to observe during the installation. By reading these instructions carefully, you will make the installation process easier, problem-free and, most importantly, safe.

Any questions or problems regarding the installation should be directed to your authorized Sub-Zero dealer or Sub-Zero customer service at 800-222-7820. You may also check the contact & support section of our website, [subzero.com](http://subzero.com).

Important product information, including the model and serial number of your unit are listed on the product rating plate. For models 424 and 424FS, the rating plate is located on the underside of the top wall. For models 427, 427R and WS-30, it is attached to the underside of the control panel. Refer to the illustrations.



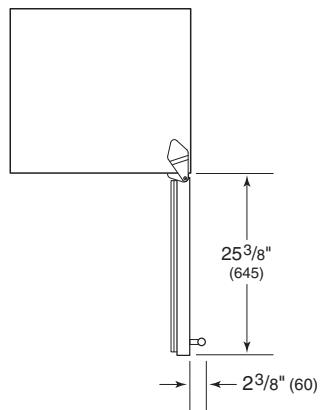
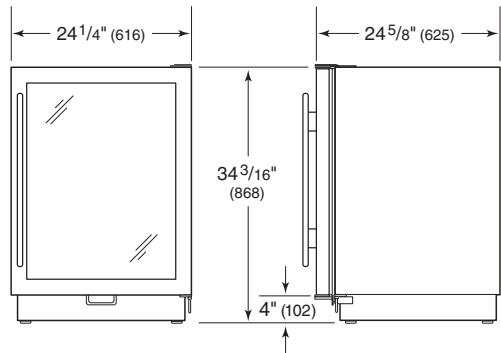
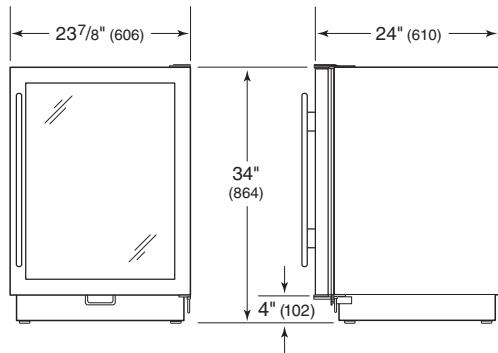
Models 424 and 424FS.



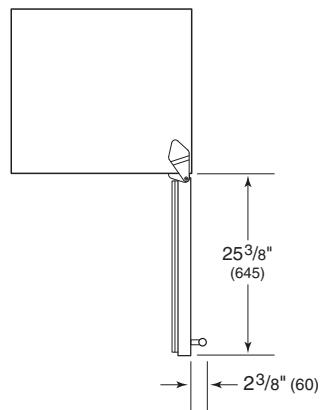
Models 427, 427R and WS-30.

## Models 424 and 424FS

### OVERALL DIMENSIONS



**MODEL 424**



**MODEL 424FS**

Door swing clearances are based on stainless steel door and handle dimensions.

## Models 424 and 424FS Installation

The model 424FS wine storage unit is designed to be attractive in a stand alone setting. Model 424 must be built in. Refer to the previous page for overall dimensions and door swing clearances for models 424 and 424FS.

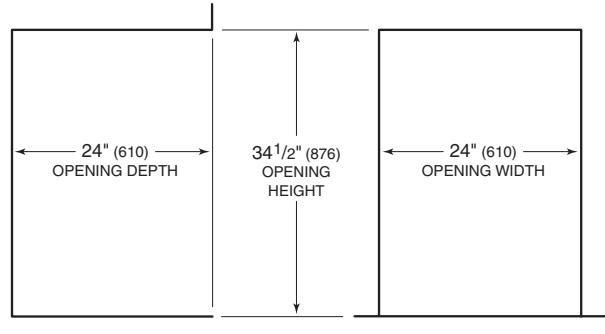
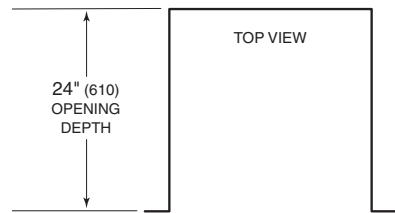
Make sure that the finished rough opening where the model 424 wine storage unit is to be installed is properly prepared. Refer to the illustration. The floor under the unit must be level with the surrounding finished floor.

**IMPORTANT NOTE:** To operate properly, the door must open a minimum of 90°. Use a minimum 3" (76) filler in corner installations to assure a 90° door opening. Allow enough clearance in front of the unit for full door swing.

### ⚠ CAUTION

Do not load wine into the wine storage unit until the installation is complete.

### OPENING DIMENSIONS



MODEL 424

## Electrical Requirements

For models 424 and 424FS, the electrical supply should be located within the shaded area shown in the illustration. Follow the National Electrical Code and local codes and ordinances when installing the receptacle. A separate circuit, servicing only this appliance is required. A ground fault circuit interrupter (GFCI) is not recommended and may cause interruption of operation.

**IMPORTANT NOTE:** For model 424, the electrical outlet must be placed so the grounding prong is to the right of the thinner blades. The outlet must be flush with the back wall.

### ⚠ CAUTION

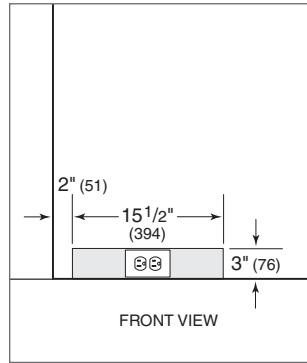
The outlet must be checked by a qualified electrician to be sure that it is wired with the correct polarity and is properly grounded.

### ⚠ WARNING

Do not use an extension cord or two-prong adapter. Electrical ground is required on this appliance. Do not remove the power cord ground prong.

### Electrical Requirements

Power Supply	115 V AC, 60 Hz
Circuit Breaker	15 amp
Receptacle	3-prong grounding-type



Location of electrical supply.

## Electrical Requirements

### HOME ALARM SYSTEM

If a home alarm system is to be used, refer to home alarm connections on page 11. In addition to operating power, the installer may also be required to supply a home automation system lead to the unit. This is for a low-voltage, low-current signal similar to door and window sensor signals. Common, normally open and normally closed contact configurations are provided.

Three 1/4" (6) female spade connectors are located in the compressor compartment and are accessible behind the kickplate on models 424 and 424FS. A minimum of 36" (914) of lead wire should be provided for each contact, exiting the back wall near the electrical outlet.

## Unpacking and Moving

Uncrate the unit, remove its wood base and discard the shipping bolts that hold the wood base to the bottom of the unit. Remove all packing materials and tape.

**IMPORTANT NOTE:** Do not discard the kickplate, anti-tip bracket and hardware. These items will be needed for the installation.

All roller-assembly wine shelves should be removed to reduce weight and prevent them from rolling. To remove, pull the shelf out to its full extension, gently and evenly lift up on both sides of the front of the shelf and remove. Reverse the procedure to reinstall the shelf.

Use an appliance dolly to move the wine storage unit. Position the dolly at the back of the unit to prevent damage to finished surfaces.

### ▲ CAUTION

Before moving the wine storage unit in to position, protect any finished flooring with appropriate materials and secure the door closed.

## Anti-Tip Bracket Installation

### ⚠ WARNING

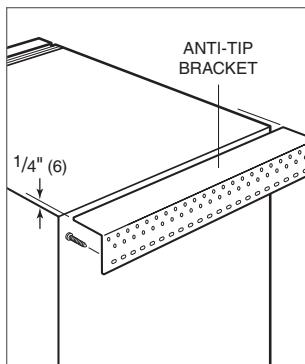
To prevent the unit from tipping forward and provide a stable installation, the unit must be secured in place with the anti-tip bracket.

An anti-tip bracket and hardware is provided with the wine storage unit. The anti-tip bracket must be installed on a solid base to prevent tipover in case several loaded wine shelves are extended at the same time.

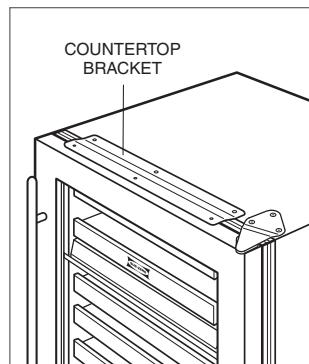
### MODEL 424

The anti-tip bracket should be attached to the wall behind the unit with the bracket flange located immediately above the top of the unit. Refer to the illustration below.

A smaller metal 'countertop' bracket is also provided with the model 424, for installations that need to be modified to provide a secure surface for attaching the bracket. This bracket will secure the front of the unit to the underside of the countertop, above the unit. Refer to the illustration below.



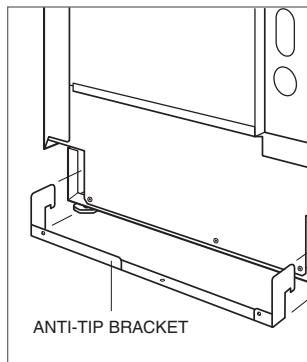
Anti-tip bracket (424).



Countertop bracket

### MODEL 424FS

If you are installing the model 424FS in a space deeper than  $24\frac{5}{8}$ " (625), the anti-tip bracket must be installed no more than  $24\frac{5}{8}$ " (625) deep, so it engages the unit properly. It is important that this measurement be made from the front surface of the door, to the back of the anti-tip bracket. Refer to the illustration below.



Anti-tip bracket (424FS).

## Anti-Tip Bracket Installation

### WOOD FLOOR APPLICATIONS

Use the four #12 x 2 $\frac{1}{2}$ " wood screws and the four 1/4" flat washers provided. Drill pilot holes 3/16" (5) diameter maximum, and be sure that the screws penetrate through the flooring material and into the wall plate a minimum of 3/4" (19). Be sure that the screws hold tight. Refer to the illustration below.

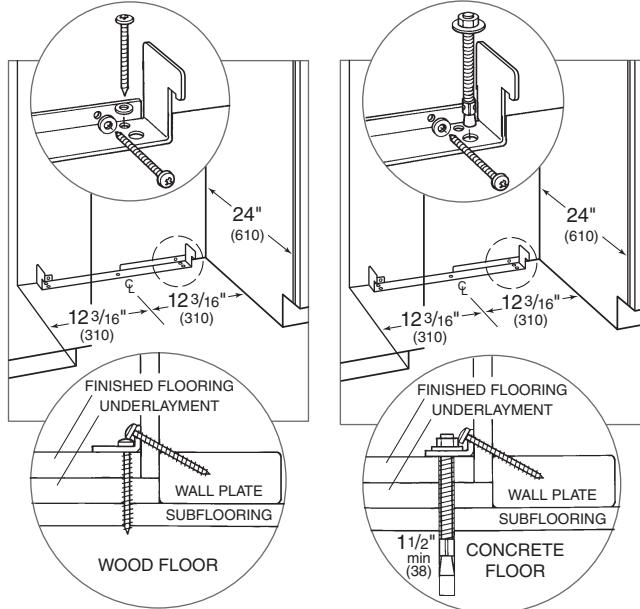
### CONCRETE FLOOR APPLICATIONS

Use the two 3/8" x 3 $\frac{3}{4}$ " concrete wedge anchors, two #12 x 2 $\frac{1}{2}$ " wood screws and two 1/4" flat washers provided. Be sure that the anchors and screws hold tight. Refer to the illustration below.

**IMPORTANT NOTE:** In some installations the subflooring or finished floor may require angling the wood screws used to fasten the anti-tip bracket to the back wall.

#### WARNING

Make sure that there are no electrical wires in the area which the screws could penetrate.



Wood floors.

Concrete floors.

### INSTALL CONCRETE WEDGE ANCHORS:

- 1) Drill a 3/8" (10) diameter hole any depth exceeding the minimum embedment. Clean the hole or continue drilling additional depth to accommodate drill fines. Use a carbide drill bit manufactured within ANSI B94.12-77.
- 2) Assemble the washer and nut flush with the end of anchor to protect threads. Drive the anchor through the material to be fastened until the washer is flush with the surface material.
- 3) Expand the anchor by tightening the nut 3–5 turns past hand-tight position or to 25 foot-pounds of torque.

#### CAUTION

Always wear safety glasses and use other necessary protective devices or apparel when installing or working with anchors.

Anchors are not recommended for use in lightweight masonry material such as block or brick, or for use in new concrete which has not had sufficient time to cure. The use of core drills is not recommended to drill holes for the anchors.

## Lock Installation

**IMPORTANT NOTE:** If you are adding an accessory lock kit to your wine storage unit, it should be installed before you position the unit.

The accessory lock kit and additional instructions are available through your authorized Sub-Zero dealer, or call Sub-Zero at 800-222-7820. You can also visit our website at [subzero.com](http://subzero.com).

### POSITION THE UNIT

**IMPORTANT NOTE:** If for any reason the wine storage unit has been laid on its back or side, you must allow the unit to stand upright for a minimum of 24 hours before connecting power.

Plug the power cord into the 15 amp grounded electrical outlet. With power applied to the appliance, check for lighting and cooling before going any further. Once you are satisfied that the unit is operating properly, shut off power to the electrical outlet at the circuit breaker and proceed.

#### ⚠ WARNING

Shut off the power to the electrical outlet.

If a home alarm system is to be used with the wine storage unit, the lead wires should be threaded into the compressor compartment before you position the unit. Refer to home alarm connections on page 11, for the location of these lead wires. After the unit is in position, the alarm wiring can be completed from the front.

Pre-level the wine storage unit before sliding it into position. Leveling cannot be completed with the unit pushed back in the installation opening.

For model 424FS, adjust the leveling legs so the top of the unit is no more than  $34\frac{5}{8}$ " (879) above the floor. This is to allow the unit to engage the anti-tip bracket properly. Center the model 424FS in front of the anti-tip bracket.

Slide the unit into position, making sure the anti-tip bracket is engaged properly.

**IMPORTANT NOTE:** When the wine storage unit is installed, the anti-tip bracket will be positioned just below the engaging bracket on the unit. It is not necessary to raise the unit up so that it locks into the anti-tip bracket, but the unit must be in alignment with the anti-tip bracket.

The wine storage unit provides the best access to its contents when the front surface of the door panel extends out from surrounding cabinets approximately  $\frac{1}{4}$ " (6). For model 424FS, if there are no surrounding cabinet surfaces to gauge depth, slide the unit back until it engages the anti-tip bracket.

**IMPORTANT NOTE:** The floor under the wine storage unit must be at the same level as the surrounding finished floor to allow for removal of the unit for servicing.

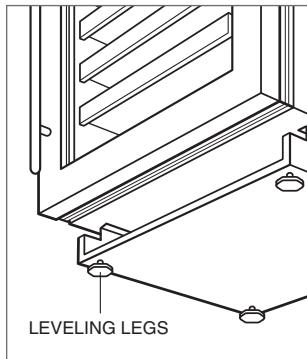
## Level the Unit

Using an adjustable wrench or pliers, turn each of the four leveling legs clockwise to raise the unit and counterclockwise to lower the unit. Refer to the illustration below for location of the leveling legs.

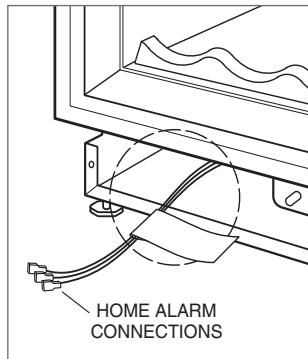
For model 424, the countertop bracket should be used to make a solid installation. Refer to the illustration on page 8. If this is not possible, wedge shims along the sides and top.

### ⚠ WARNING

To reduce the possibility of the unit tipping forward, the front leveling legs must be in contact with the floor.



Leveling legs.



Home alarm connections.

## Home Alarm Connections

Before the kickplate is installed, all necessary wiring connections in the compressor compartment should be completed.

If a home alarm system is to be installed on the wine storage unit, the connections should be made using the logic supplied with the alarm specifications. Refer to the illustration for the appliance lead locations, and refer to the following for color codes:

- Normally open contacts – white with red stripe wire
- Normally closed contacts – white with blue stripe wire
- Common – gray with white stripe wire

Use the 1/4" (6) spade terminals or wire nuts provided to make the proper wiring connections.

**IMPORTANT NOTE:** If you are not responsible for alarm system connection, this information should be supplied to the home security system contractor.

### ⚠ CAUTION

The alarm circuit in the unit is intended as a low-voltage, low-current device only. It should not be used to switch line power.

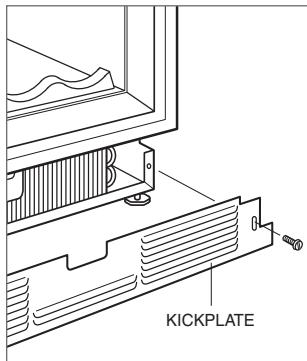
Any unused terminals should be completely insulated and all wires should be secured away from conductive or moving components.

## Kickplate Installation

Once the unit is leveled and wiring connections made, the kickplate can be installed. Use the two #10 x 1/2" stainless steel screws that are provided with the kickplate. Refer to the illustration below.

**IMPORTANT NOTE:** The kickplate must be removed for servicing. The floor cannot interfere with removal. The louvered section of the kickplate must not be covered so as to prevent air circulation.

Turn power back on to the electrical outlet.



Kickplate installation.

## Door Panel—Model 424

Model 424 is offered in two design applications; stainless steel (/S) and overlay (/O). Each of these designs have a full-view glass door.

The stainless steel model 424G/S is shipped from the factory with the decorative stainless steel door panel and matching handle in place.

The overlay model 424G/O is designed to accept a decorative door panel to match surrounding cabinetry. The door panel and the handle will be provided by the customer.

Before beginning installation, check for the correct components for the fit and finish desired. All overlay doors require a decorative panel 23<sup>3</sup>/<sub>4</sub>" (603) by 30<sup>1</sup>/<sub>16</sub>" (764) and a minimum 5/8" (16) thick.

**IMPORTANT NOTE:** For installations at or above 5,000' (1524 m) in altitude, a special high altitude glass door unit (HAG) must be ordered.

If you have questions, contact your authorized Sub-Zero dealer or cabinet supplier. Additional panel information can be found in the Sub-Zero design guide.

### ▲ CAUTION

A solid panel cannot be installed over the glass door, as this may cause moisture to form behind the panel.

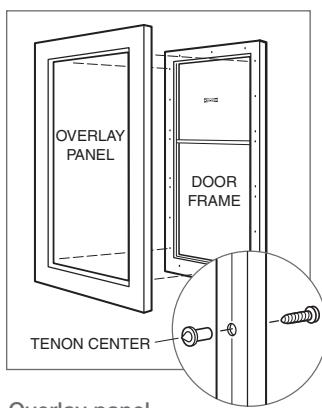
## Overlay Door Panel—Model 424

Inspect the door panel for the minimum  $5/8"$  (16) thickness, the finished inside edge. The glass door has a 10 lbs (5 kg) weight limit. Refer to the wine storage section of the Sub-Zero design guide for additional panel information.

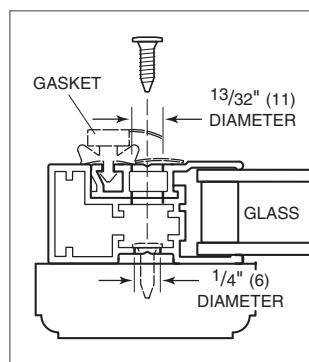
Decide if the handle will be attached through the glass door frame or just through the decorative door panel. If it is just through the door panel, the handle must be attached first.

Decorative panels are attached to the model 424 door using  $\#8 \times 5/8"$  square drive screws passing through the door frame from the rear, behind the gasket into the panel. The door panel is marked for screw locations by the use of 'tenon centers', which are temporarily inserted into the  $1/4"$  (6) diameter holes in the front of the glass door frame. Refer to the illustration below.

With the wine storage unit secured in position and the door closed, the panel is held in the desired position on the door and rapped by hand from the front, putting center marks on the rear surface of the panel. If the door panel is made of such a material that pre-drilling is needed, all of the mounting holes should be marked. If not, only enough holes to hold the panel in place temporarily, are necessary.



Overlay panel.



Door frame cross section.

The door panel is then lowered from the door frame, tenon centers removed, the door opened and the screws driven into the panel through the black tape on the door frame, using the center marks to locate the screws.

The screw holes inside the door are hidden under a cover flap on the door gasket. It is necessary to lift the flap to insert the screws. Use as many screws as necessary to hold the door panel in place properly.

**IMPORTANT NOTE:** After the first three or four mounting screws are in place, but not completely tightened, close the door and check your panel fit. This is the time to make small adjustments. Once you are satisfied with the appearance, open the door and apply the remainder of the screws. Check all screws for tightness.

The metal frame on the glass door has numerous mounting holes on each side of the door. This is to accommodate the Sub-Zero accessory handles and provide for easy attachment of the handle through the door frame.

If you choose not to use the pre-drilled handle mounting holes, it will be necessary to fasten the handle from the rear of the door panel only, or drill one or more additional holes through the metal frame of the glass door.

The cross section illustration shows how this hole passes through the door frame. The hole center is on the small locator groove in the front of the frame. A  $1/4"$  (6) diameter hole is made in the front wall of the extrusion and a  $13/32"$  (11) diameter hole through the rest of the frame.

## Overlay Door Panel—Model 424

**IMPORTANT NOTE:** Install screws in all the mounting holes in the door frame. The nature of the door panel with a narrow outer rim and no connecting center member requires the support provided by the glass door.

After the door panel installation is complete, apply the cover patches or plugs provided over the holes on the inside surface of the door.

### **▲ CAUTION**

The cover patches or plugs are part of the insulation system on the door of the wine storage unit. Be sure to cover all the holes in the door that were used.

### **▲ CAUTION**

The wine storage unit door is made with a sealed double wall tempered glass core. The drill must not contact this core when drilling. Be sure the hole is centered on the small groove in the front of the door frame and the drill passes squarely through the frame. If you are inexperienced with drilling, fasten the handle from the rear of the door panel only.

## Hinge Adjustment

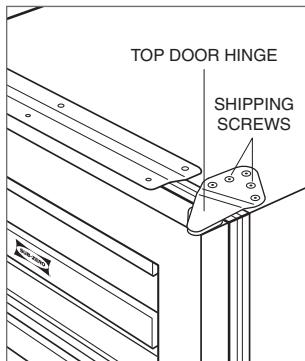
**IMPORTANT NOTE:** The wine storage unit must be installed and leveled before door hinge adjustments can be made.

The top and bottom cabinet hinges on models 424 and 424FS are held in place with three permanent adjustment screws and two shipping screws. Refer to the illustrations below. The shipping screws must be removed and discarded to adjust the door alignment and fit. If no adjustments are necessary, it is recommended that all five screws remain in place.

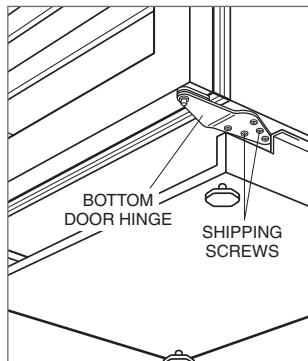
On the model 424FS, only the bottom door hinge can be adjusted. Remove and discard the two shipping screws and loosen the three hinge screws to adjust the door.

## Complete the Installation

**IMPORTANT NOTE:** When you have completed the installation of the model 424 or 424FS wine storage unit, refer to page 54 for an installation checklist and page 55 for service information.



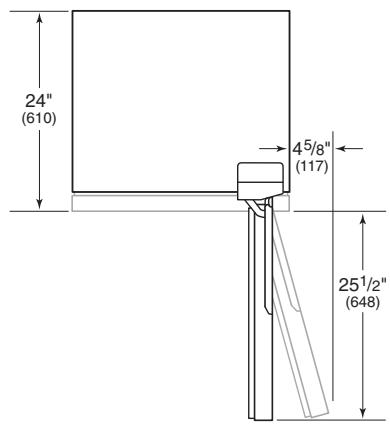
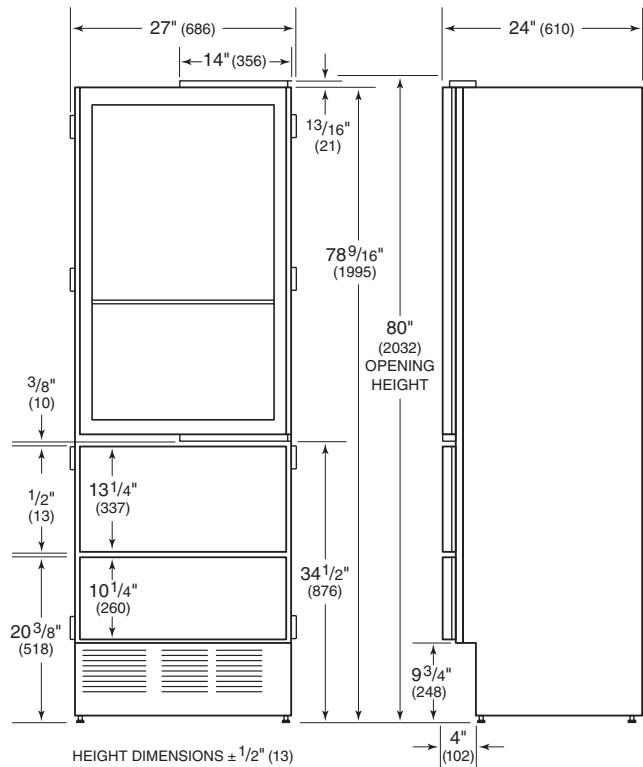
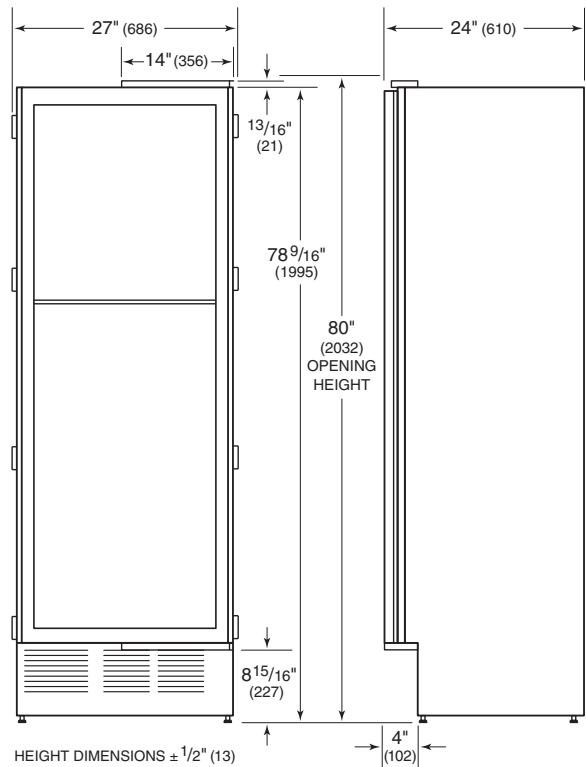
Top hinge.



Bottom hinge.

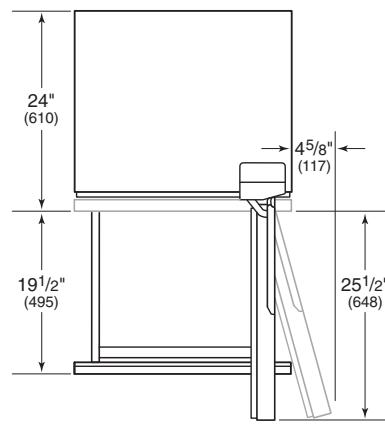
## Models 427 and 427R

## OVERALL DIMENSIONS



DIMENSIONS WILL VARY WITH PANEL THICKNESS

## MODEL 427



DIMENSIONS WILL VARY WITH PANEL THICKNESS

## MODEL 427R

WITH REFRIGERATOR DRAWERS

Overall dimensions do not include panels or handles.

## Models 427 and 427R Installation

Refer to the previous page for overall dimensions and door swing clearances for models 427 and 427R.

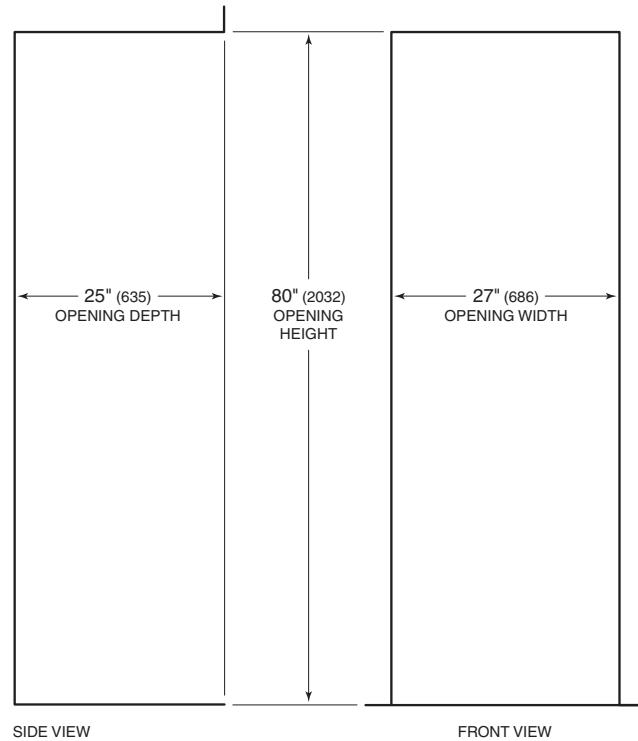
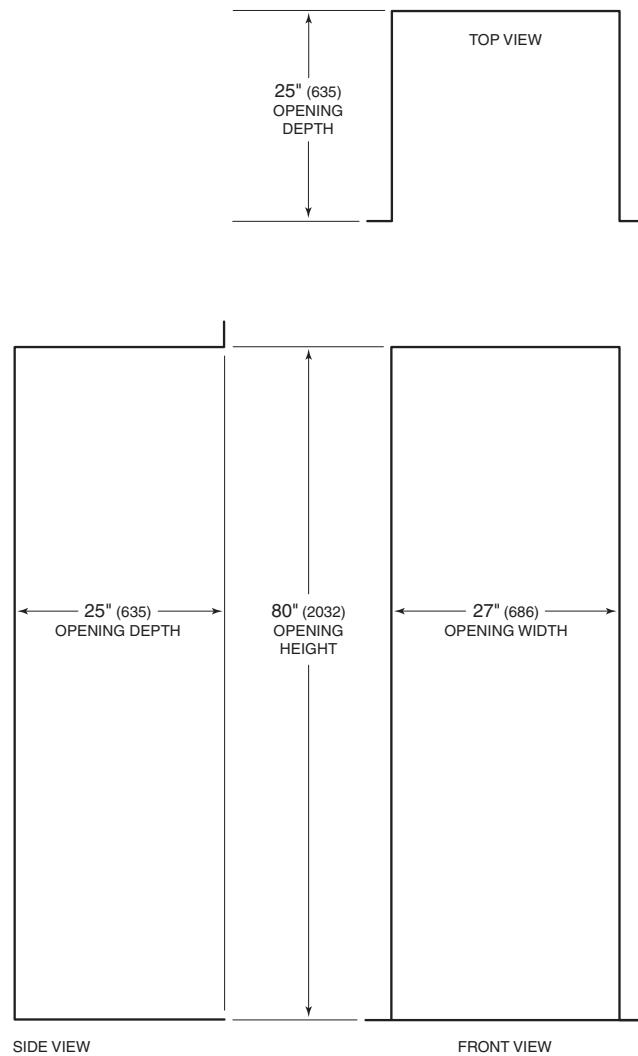
Make sure that the finished rough opening where the wine storage unit is to be installed is properly prepared. Refer to the illustration for rough opening dimensions for models 427 and 427R. The floor under the unit must be level with the surrounding finished floor.

**IMPORTANT NOTE:** To operate properly, the door must open a minimum of 90°. Use a minimum 2" (51) filler in corner installations to assure a 90° door opening. Allow enough clearance in front of the unit for full door swing.

### ⚠ CAUTION

Do not load wine into the wine storage unit until the installation is complete.

### OPENING DIMENSIONS



80" (2032)  
OPENING  
HEIGHT

27" (686)  
OPENING  
WIDTH

SIDE VIEW

FRONT VIEW

**IMPORTANT NOTE:** The depth of each integrated model is 24" (610) from the front of the unit to its back. Your design may necessitate moving the unit back or cabinets forward to achieve a flush fit. This will require a minimum rough opening depth of 25" (635).

## Electrical Requirements

For models 427 and 427R, the electrical supply should be located within the shaded area shown in the illustration. Follow the National Electrical Code and local codes and ordinances when installing the receptacle. A separate circuit, servicing only this appliance is required. A ground fault circuit interrupter (GFCI) is not recommended and may cause interruption of operation.

**IMPORTANT NOTE:** For models 427 and 427R, the electrical outlet must be placed so the grounding prong is to the right of the thinner blades. The outlet must be flush with the back wall.

### CAUTION

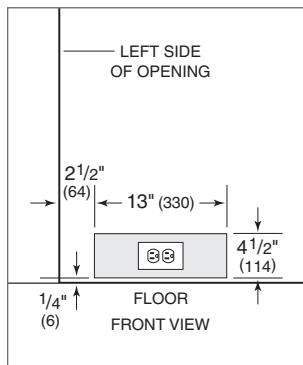
The outlet must be checked by a qualified electrician to be sure that it is wired with the correct polarity and is properly grounded.

### WARNING

Do not use an extension cord or two-prong adapter. Electrical ground is required on this appliance. Do not remove the power cord ground prong.

### Electrical Requirements

Power Supply	115 V AC, 60 Hz
Circuit Breaker	15 amp
Receptacle	3-prong grounding-type



Location of electrical supply.

## Electrical Requirements

### HOME ALARM SYSTEM

If a home alarm system is to be used, refer to wiring connections on page 24. In addition to operating power, the installer may also be required to supply a home automation system lead to the unit. This is for a low-voltage, low-current signal similar to door and window sensor signals. Common, normally open and normally closed contact configurations are provided.

Three 1/4" (6) female spade connectors are located in the compressor compartment and are accessible behind the kickplate/grille on models 427 and 427R. A minimum of 36" (914) of lead wire should be provided for each contact, exiting the back wall near the electrical outlet.

## Unpacking and Moving

Uncrate the unit, remove its wood base and discard the shipping bolts that hold the wood base to the bottom of the unit. Remove all packing materials and tape.

**IMPORTANT NOTE:** Do not discard the kickplate/grille, anti-tip bracket and hardware. These items will be needed for the installation.

All roller-assembly wine shelves should be removed to reduce weight and prevent them from rolling. To remove, pull the shelf out to its full extension, gently and evenly lift up on both sides of the front of the shelf and remove. Reverse the procedure to reinstall the shelf.

Retract the front leveling legs to allow you to move the unit more easily during installation. You will extend the leveling legs when the unit is in its final position to reduce the possibility of the unit tipping forward.

Use an appliance dolly to move the wine storage unit. Position the dolly at the side of the unit to prevent damage to finished surfaces.

### ▲ CAUTION

Before moving the wine storage unit into position, protect any finished flooring with appropriate materials.

## Anti-Tip Bracket Installation

An anti-tip bracket and hardware is provided with the wine storage unit. The anti-tip bracket must be installed on a solid base to prevent tipover in case several loaded wine shelves are extended at the same time.

If you are installing the model 427 or 427R in a space deeper than 24" (610), the anti-tip bracket must be installed no more than 24" (610) deep, so it engages the unit properly. It is important that this measurement be made from the front of the unit without panels, to the back of the anti-tip bracket.

### ⚠ WARNING

To prevent the unit from tipping forward and provide a stable installation, install the anti-tip bracket and extend the front leveling legs to the floor.

### WOOD FLOOR APPLICATIONS

Use the six #12 x 2 1/2" wood screws and the six 1/4" flat washers provided. Drill pilot holes 3/16" (5) diameter maximum, and be sure that the screws penetrate through the flooring material and into the wall plate a minimum of 3/4" (19). Be sure that the screws hold tight. Refer to the illustration below.

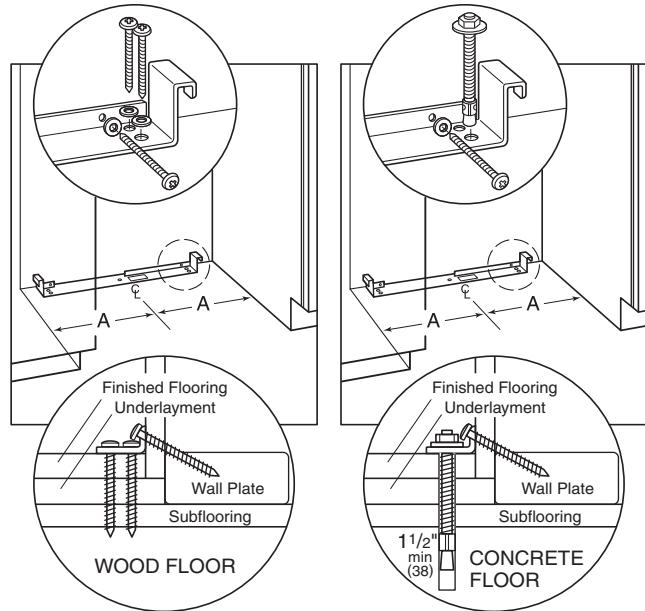
### CONCRETE FLOOR APPLICATIONS

Use the two 3/8" x 3 3/4" concrete wedge anchors, two #12 x 2 1/2" wood screws and two 1/4" flat washers provided. Be sure that the anchors and screws hold tight. Refer to the illustration below.

**IMPORTANT NOTE:** In some installations the subflooring or finished floor may require angling the wood screws used to fasten the anti-tip bracket to the back wall.

### ⚠ WARNING

Make sure that there are no electrical wires in the area which the screws could penetrate.



Wood floors —  
dimension A is 13 1/2" (343).

Concrete floors —  
dimension A is 13 1/2" (343).

## Anti-Tip Bracket Installation

### INSTALL CONCRETE WEDGE ANCHORS:

- 1) Drill a 3/8" (10) diameter hole any depth exceeding the minimum embedment. Clean the hole or continue drilling additional depth to accommodate drill fines. Use a carbide drill bit manufactured within ANSI B94.12-77.
- 2) Assemble the washer and nut flush with the end of anchor to protect threads. Drive the anchor through the material to be fastened until the washer is flush with the surface material.
- 3) Expand the anchor by tightening the nut 3–5 turns past hand-tight position or to 25 foot-pounds of torque.

### ⚠ CAUTION

Always wear safety glasses and use other necessary protective devices or apparel when installing or working with anchors.

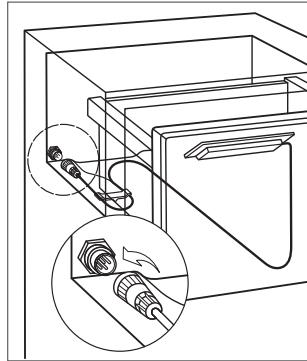
Anchors are not recommended for use in lightweight masonry material such as block or brick, or for use in new concrete which has not had sufficient time to cure. The use of core drills is not recommended to drill holes for the anchors.

## Position Unit

**IMPORTANT NOTE:** For model 427R, the top drawer has a control cable that needs to be disconnected before removing this drawer. Refer to the illustration below for placement and how to disconnect this fitting.

For model 427R, the drawers should be placed aside until you are ready for installation of the door and drawer panels.

**IMPORTANT NOTE:** When two model 427, 427R or integrated units are installed closer than 2" (51) to one another, it is necessary to use the dual installation heater kit. The heater from this kit must be attached to the left side exterior of the right-hand unit before the unit is slid into position. The dual installation heater kit and additional instructions is available through your authorized Sub-Zero dealer, or call Sub-Zero at 800-222-7820. You can also visit our website at [subzero.com](http://subzero.com).



Control cable.

## Lock Installation

For models 427 and 427R, the optional lock is attached to the decorative door panel through a field-drilled hole in the panel. The catch should be installed on the top of appliance cabinet before the unit is moved into position. The accessory lock kit and additional instructions are available through your authorized Sub-Zero dealer, or call Sub-Zero at 800-222-7820. You can also visit our website at [subzero.com](http://subzero.com).

**IMPORTANT NOTE:** For accessory stainless steel panels requiring a lock, panels must be ordered with the lock mounting hole pre-drilled.

## Position the Unit

Remove the decorative top and side moldings and the kickplate/grille of the wine storage unit.

**IMPORTANT NOTE:** If for any reason the wine storage unit has been laid on its back or side, you must allow the unit to stand upright for a minimum of 24 hours before connecting power.

Plug the power cord into the 15 amp grounded electrical outlet. With power applied to the appliance, check for lighting and cooling before going any further. Once you are satisfied that the unit is operating properly, shut off power to the electrical outlet at the circuit breaker and proceed.

### ⚠ WARNING

Shut off the power to the electrical outlet.

If a home alarm system is to be used with the wine storage unit, the lead wires should be threaded into the compressor compartment before you position the unit. Refer to wiring connections on page 24 for the location of these lead wires. After the unit is in position, the alarm wiring can be completed from the front.

Pre-level the wine storage unit before rolling into position. This is to allow the unit to engage the anti-tip bracket properly.

Roll the unit into position, making sure the anti-tip bracket is engaged properly. Screw the front leveling legs out approximately  $\frac{3}{16}$ " (5) to make any future adjustments easier.

**IMPORTANT NOTE:** When the wine storage unit is installed, the anti-tip bracket will be positioned just below the engaging bracket on the unit. It is not necessary to raise the unit up so that it locks into the anti-tip bracket, but the unit must be in alignment with the anti-tip bracket.

**IMPORTANT NOTE:** The floor under the wine storage unit must be at the same level as the surrounding finished floor to allow for removal of the unit for servicing.

## Leveling

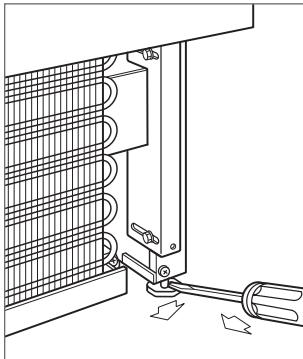
Level the unit by turning the front leveling legs clockwise to raise the unit, or counterclockwise to lower it. To assist you in adjusting the front leveling legs up or down, use a standard screwdriver blade and place it in the front leveling leg as shown in the illustration below.

The rear leveling legs are adjusted from the front of the base by turning the Phillips head screw. Refer to the illustration below.

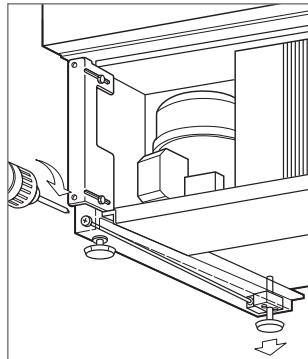
**IMPORTANT NOTE:** The rear leveling legs will only move  $1/16"$  (2) for every 18 revolutions on the Phillips head screw. Do not over torque. Use the lowest torque setting on any power screwdriver. Do not turn the rear leveling legs by hand. Damage will occur if you turn these legs.

### ⚠ WARNING

To reduce the possibility of the unit tipping forward, the front leveling legs must be in contact with the floor.



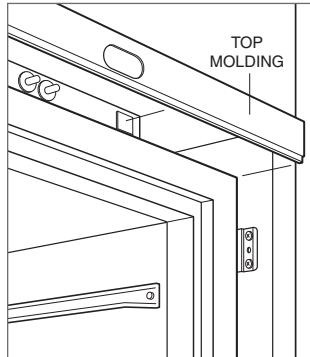
Front leveling legs.



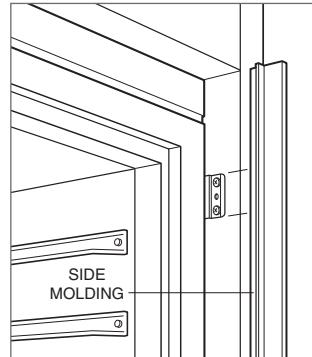
Rear leveling legs.

## Install Molding

The decorative white molding strips for the top and sides of models 427 and 427R can be snapped into place as shown in the illustrations below. The top molding piece must be installed before the side molding can be attached. For installations where units are positioned side by side, refer to side panels on page 29.



Top molding.



Side molding.

## Wiring Connections

Before the kickplate/grille is installed, all necessary wiring connections in the compressor compartment should be completed.

If the dual installation heater kit is used with model 427 or 427R, the power supply leads should be connected according to instructions included with the kit.

If a home alarm system is to be installed on the wine storage unit, the connections should be made using the logic supplied with the alarm specifications. Refer to the illustration below for the appliance lead locations, and refer to the following for color codes:

- Normally open contacts: white with red stripe wire.
- Normally closed contacts: white with blue stripe wire.
- Common: gray with white stripe wire.

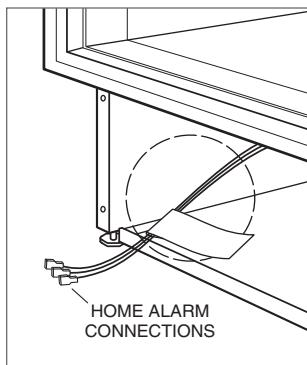
Use the 1/4" (6) spade terminals or wire nuts provided to make the proper wiring connections.

**IMPORTANT NOTE:** If you are not responsible for alarm system connection, this information should be supplied to the home security system contractor.

### ▲ CAUTION

The alarm circuit in the unit is intended as a low-voltage, low-current device only. It should not be used to switch line power.

Any unused terminals should be completely insulated and all wires should be secured away from conductive or moving components.



Home alarm connections.

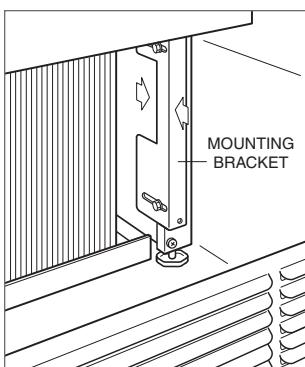
## Kickplate/Grille

Once the unit is leveled and wiring connections made, the kickplate/grille can be installed. The mounting bracket may be adjusted slightly forward or back so the kickplate/grille will fit flush with the surrounding area. Refer to the illustration below.

The kickplate/grille must be removable for servicing. The floor cannot interfere with removal.

**IMPORTANT NOTE:** The unit must be allowed to have ventilation through the fins of the kickplate/grille. You may cover the solid area, but do not block the fins. For model 427R, the lower drawer panel may hang in front of the fins, but the baseboard molding must not cover them.

Turn power back on to the electrical outlet.



Kickplate/grille installation.

## Door Panels

Models 427 and 427R have a full-view glass door. Each of these wine storage units are set up at the job site as either the stainless steel or integrated design.

Stainless steel panels are available as sales accessories and are shipped separately. Stainless steel panels are shipped with matching handles in place.

The integrated design uses custom wood or other decorative panels and handles provided by the customer.

Model 427R requires solid panels on the drawers that may match the door panel, or be complementary. The model 427R stainless steel drawer panel set and stainless steel door panel are ordered and shipped as two items.

Before beginning installation, check for the correct components for the fit and finish desired. The door and drawers (model 427R) require a decorative panel that is a minimum  $5/8"$  (16) thick.

**IMPORTANT NOTE:** For installations at or above 5,000' (1524 m) in altitude, a special high altitude glass door unit (HAG) must be ordered.

If you have questions, contact your authorized Sub-Zero dealer or cabinet supplier. Additional panel information can be found in the Sub-Zero design guide, or visit our website at [subzero.com](http://subzero.com).

### ▲ CAUTION

A solid panel cannot be installed over the glass door, as this may cause moisture to form behind the panel.

## Stainless Steel Door Panel

Before installing the stainless steel door panel, check the panel carefully. Options are available for kickplate/grille height, overall height, door swing and door lock.

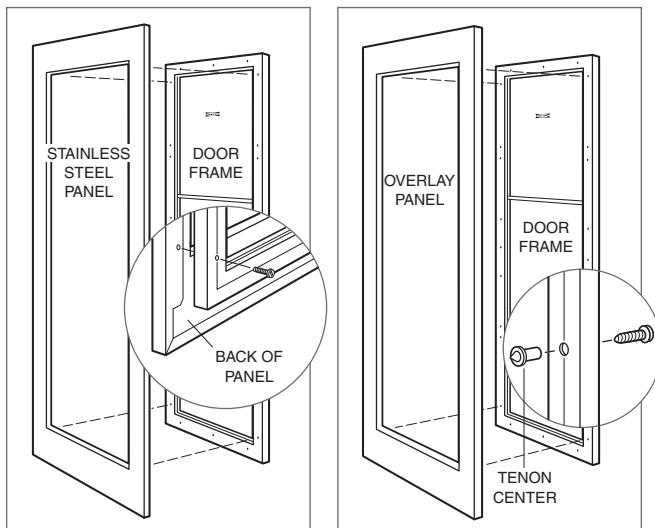
The stainless steel panel is mounted to the door by passing the #8-32 x 5/8" screws provided, through holes in the door frame from the rear, and into the threaded holes in the door panel. Refer to the illustration below. The screw holes inside the door are hidden under a cover flap on the door gasket. It is necessary to lift the flap to insert the screws.

After the door panel installation is complete, apply the cover patches or plugs provided over the holes on the inside surface of the door.

For installation of stainless steel panels on model 427R drawers, refer to model 427R drawer panels on page 28.

### CAUTION

The cover patches or plugs are part of the insulation system on the door of the wine storage unit. Be sure to cover all the holes in the door that were used.



Stainless steel panel.

Overlay panel.

## Overlay Door Panel

Inspect the door panel for the minimum 5/8" (16) thickness, the greater width requirements for the stiles (to cover the door hinges), and the finished inside edge. The glass door panel has a weight limit of 20 lbs (9 kg). Refer to the wine storage section of the Sub-Zero design guide for additional panel information.

Decide if the handle will be attached through the glass door frame or just through the decorative door panel. If it is just through the door panel, the handle must be attached first.

If a lock is to be used, the body of the lock should be installed on the door panel after the panel is mounted.

Decorative panels are attached to the model 427 and 427R door using #8 x 5/8" square drive screws passing through the door frame from the rear, behind the gasket into the panel. The door panel is marked for screw locations by the use of 'tenon centers', which are temporarily inserted into the 1/4" (6) diameter holes in the front of the glass door frame. Refer to the illustration.

With the wine storage unit secured in position and the door closed, the panel is held in the desired position on the door and rapped by hand from the front, putting center marks on the rear surface of the panel. If the door panel is made of such a material that pre-drilling is needed, all of the mounting holes should be marked. If not, only enough holes to hold the panel in place temporarily, are necessary.

The door panel is then lowered from the door frame, tenon centers removed, the door opened and the screws driven into the panel through the black tape on the door frame, using the center marks to locate the screws.

## Overlay Door Panel

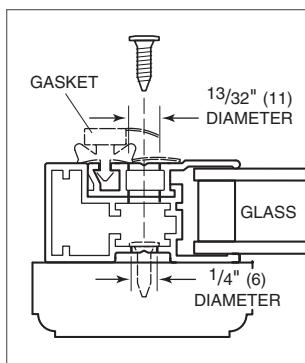
The screw holes inside the door are hidden under a cover flap on the door gasket. It is necessary to lift the flap to insert the screws. Use as many screws as necessary to hold the door panel in place properly.

**IMPORTANT NOTE:** After the first three or four mounting screws are in place, but not completely tightened, close the door and check your panel fit. This is the time to make small adjustments. Once you are satisfied with the appearance, open the door and apply the remainder of the screws. Check all screws for tightness.

The metal frame on the glass door has numerous mounting holes on each side of the door. This is to accommodate the Sub-Zero accessory handles and provide for easy attachment of the handle through the door frame.

If you choose not to use the pre-drilled handle mounting holes, it will be necessary to fasten the handle from the rear of the door panel only, or drill one or more additional holes through the metal frame of the glass door.

The cross section illustration below shows how this hole passes through the door frame. The hole center is on the small locator groove in the front of the frame. A  $1/4"$  (6) diameter hole is made in the front wall of the extrusion and a  $13/32"$  (11) diameter hole through the rest of the frame.



Door frame cross section.

**IMPORTANT NOTE:** Install screws in all the mounting holes in the door frame. The nature of the door panel with a narrow outer rim and no connecting center member requires the support provided by the glass door.

After the door panel installation is complete, apply the cover patches or plugs provided over the holes on the inside surface of the door.

### ⚠ CAUTION

The wine storage unit door is made with a sealed double wall tempered glass core. The drill must not contact this core when drilling. Be sure the hole is centered on the small groove in the front of the door frame and the drill passes squarely through the frame. If you are inexperienced with drilling, fasten the handle from the rear of the door panel only.

### ⚠ CAUTION

The cover patches or plugs are part of the insulation system on the door of the wine storage unit. Be sure to cover all the holes in the door that were used.

## Model 427R Drawer Panels

**IMPORTANT NOTE:** Drawer panels for model 427R must be a minimum of  $5/8"$  (16) thick and cannot exceed 12 lbs (5 kg) for each panel.

Remove the mounting hardware provided and set aside. You should work on the back side of each drawer panel and you should protect the fronts of these panels.

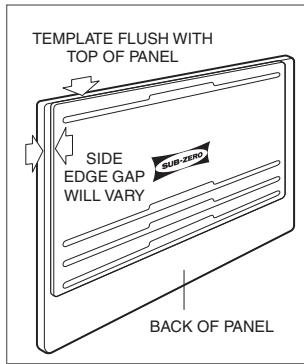
Position the top edge of the drawer template flush with the top edge of each drawer. For the top drawer, there is only one place for the lower mounting bracket to be placed. However, depending on the depth of the lower drawer panel, you have two options for placement of the bracket. Refer to the illustration below.

Secure the template in place with tape or small clamps and mark positions for your pilot holes. Remove template. Drill pilot holes and place the hardware in the proper place (dog-ear bracket on top) and fasten securely with the  $\#8 \times 1/2"$  screws provided. Refer to the illustration below.

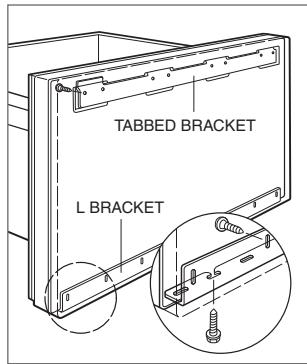
To help with proper placement of drawer panels, examine the lower panel mounting bracket and determine which slotted holes to use. Position screws into the lower portion of the drawer that correspond with these slotted holes. Leave these screws out a small distance so they can help when you mount the drawer panels to the drawer.

With the two brackets in place on the drawer panel, engage the top dog-ear bracket first and then the lower bracket onto the protruding screws. You will have a  $1/4"$  (6) adjustment up and down and side to side in each drawer panel. Fasten all screws to the lower bracket to secure the drawer panel.

**IMPORTANT NOTE:** Once drawer panels have been adjusted for proper spacing, be sure to reconnect the control cable on the upper drawer after you have installed the drawer. Refer to the illustration on page 21.



Template position.



Drawer panel installation.

## Side Panels

Side panels for models 427 and 427R are not attached to the unit. You must securely fasten the panels to adjacent cabinets and floor.

Panels should be fastened to the floor and walls using 'L' brackets (hardware not provided). To help you move the unit into place, rout out an area in the floor so the 'L' bracket will sit flush with the floor level.

## Anchoring

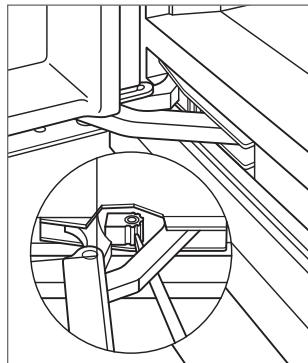
Brackets and screws are provided for mounting the unit to adjoining cabinets and side panels. Each unit has four side-mounting clips on each side.

**IMPORTANT NOTE:** For installations where you are not attaching to a side wall, or you are installing two model 427, 427R or integrated units together, you must remove the side-mounting clips before moving the unit into position. After removing the clips, replace the screws into the appliance.

A dual installation heater kit is necessary for anchoring two model 427, 427R or integrated units together. The kit is available through your authorized Sub-Zero dealer, or call Sub-Zero at 800-222-7820. You can also visit our website at [subzero.com](http://subzero.com).

## 90° Door Stop

Models 427 and 427R have a 90° door stop built into the hinge system. Use the blade edge of a standard screwdriver and rotate the brass cam in the center portion of the hinge until you reach the stop. You must make this adjustment to both the bottom and top hinge. Refer to the illustration below.



90° door stop.

## Complete the Installation

**IMPORTANT NOTE:** When you have completed the installation of the model 427 or 427R wine storage unit, refer to page 54 for an installation checklist and page 55 for service information.

## Model WS-30 Installation

Make sure that the actual equipment that was shipped to you matches the design you are expecting to install.

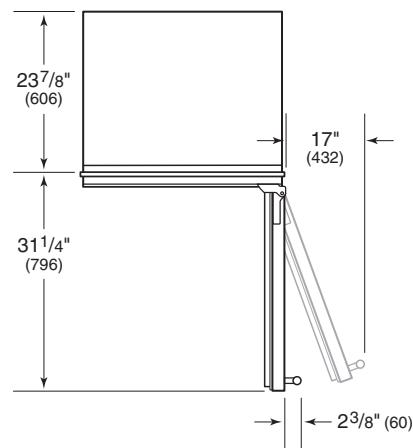
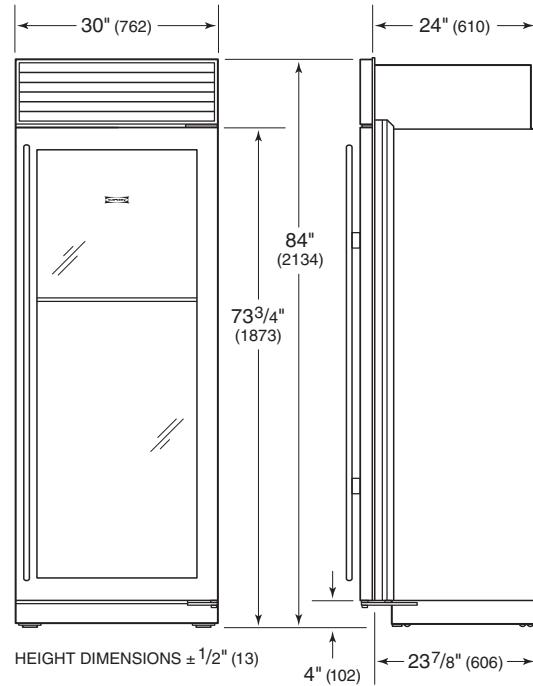
Before you begin the installation process, check the exact model number you need against the model number on the shipping carton. If the unit you receive does not match your requirements, contact your authorized Sub-Zero dealer.

The model WS-30 wine storage unit offers the following design alternatives—framed, overlay, flush inset and stainless steel models. The overlay model has two design applications—overlay and flush inset.

Each of these design options has specific installation requirements, which means it is vital that the unit match your planning and space needs. Refer to the overall dimensions illustration for model WS-30 shown in the stainless steel design. Dimensions will be the same for all design applications.

The door of the model WS-30 opens to a maximum of 110°. A 90° door stop is shipped with the unit. The handle depth reflects a tubular or pro handle. For additional information, refer to the full-scale templates in the Sub-Zero design guide.

### OVERALL DIMENSIONS



Overall dimensions are based on the stainless steel model. For flush inset applications, add 1/2" (13) to door clearance dimensions.

## Site Preparation

Make sure that the finished rough opening where the wine storage unit is being installed is properly prepared. Refer to installation specifications on the following pages. These specifications are identical for the framed, overlay and stainless steel applications. Installation specifications are different for the flush inset application, whether you are using custom panels or Sub-Zero accessory flush inset panels.

If you are installing two models WS-30, or a model WS-30 and a built-in unit side by side in the framed, overlay, flush inset or stainless steel application, a filler strip is recommended. Add the filler strip width to the finished rough opening dimension. For installation of two units side by side without a filler strip, a dual installation kit will be necessary.

**IMPORTANT NOTE:** To operate properly, the door must open a minimum of 90°. Use a minimum 3" (76) filler in corner installations to assure a 90° door opening. Allow enough clearance in front of the unit for full door swing.

**IMPORTANT NOTE:** Make sure the floor under the unit is level with the surrounding finished floor.

### ⚠ CAUTION

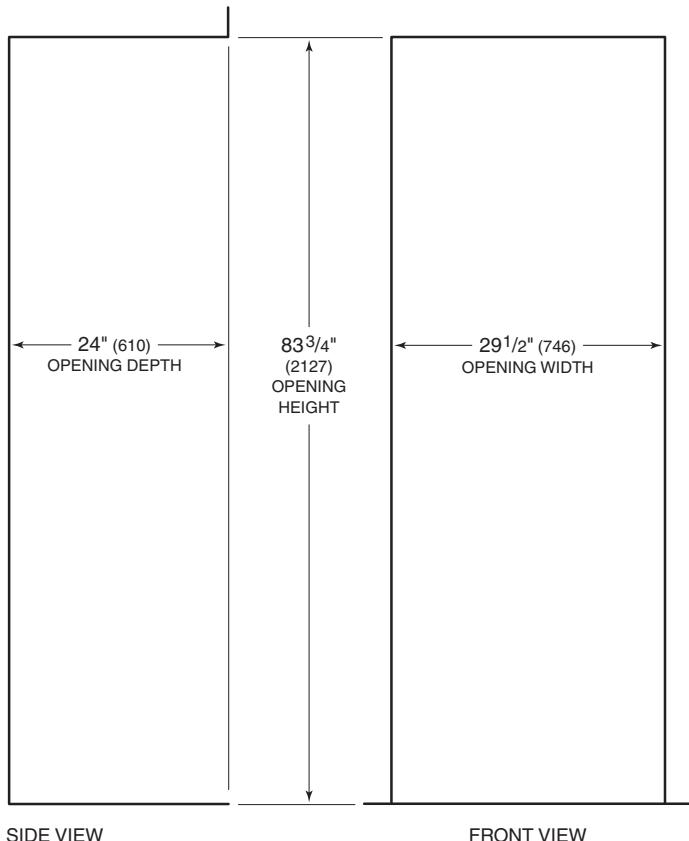
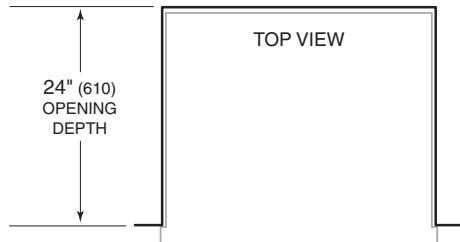
Do not load wine into the wine storage unit until the installation is complete.

### TOOLS AND MATERIALS REQUIRED:

- Phillips screwdriver set
- Slotted screwdriver set
- Torx drive screwdriver set
- Level—2' (.6 m) and 4' (1.2 m) recommended
- Appliance dolly able to support 700 lbs (317 kg) and adequate manpower to handle the weight of the unit
- Various sized pliers
- Wrench set
- Allen wrench set
- 3/8" hex bolt nut driver
- Crescent wrenches
- Cordless drill and assorted drill bits
- Masonite, plywood, 1/8" pressed fiberboard, cardboard or other suitable material to protect finished flooring
- Appropriate materials to cover and protect the home and its furnishings during installation

## Standard Installation Opening Dimensions

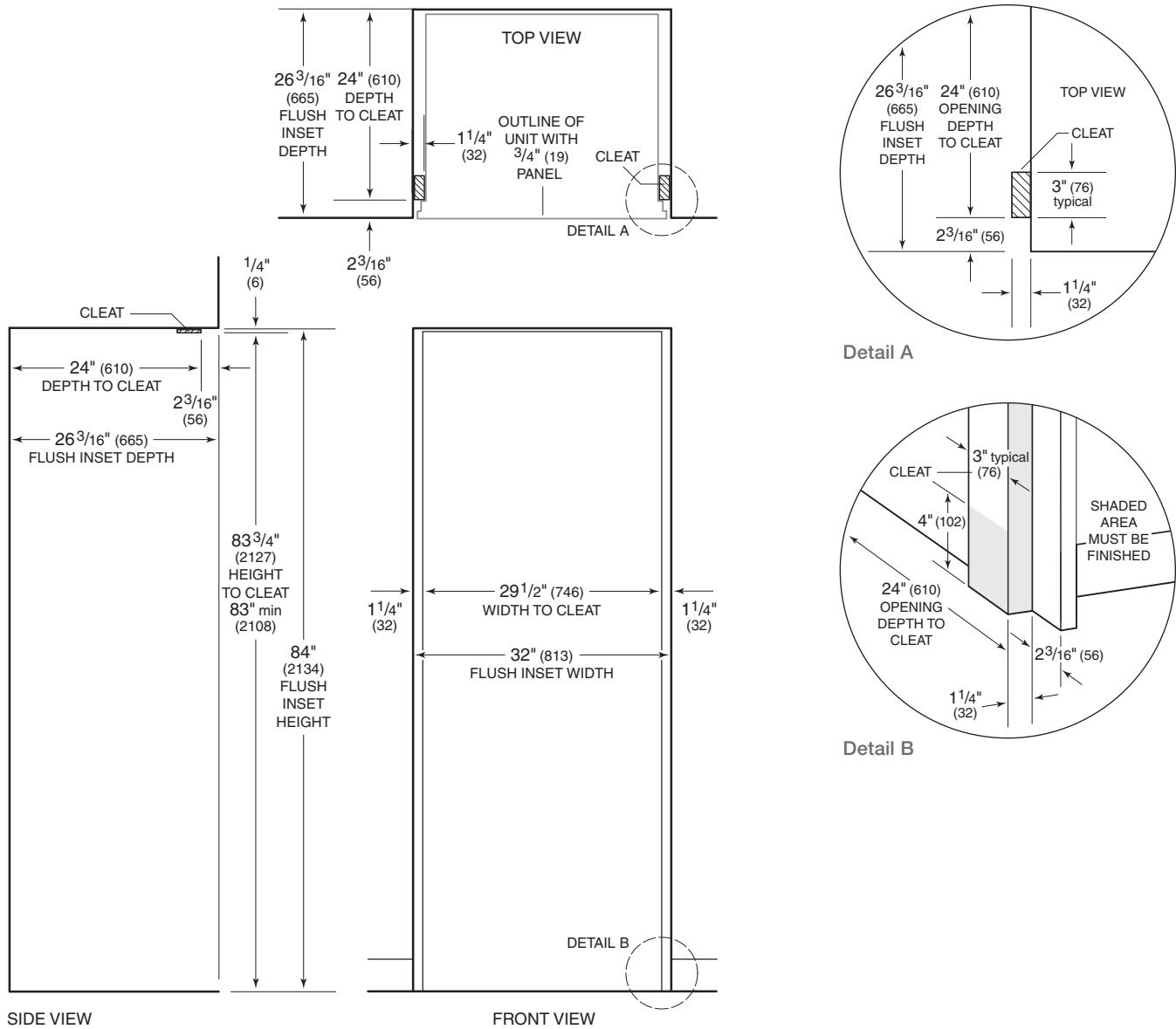
Framed, Overlay and Stainless Steel Models



**IMPORTANT NOTE:** If two units are installed side by side, refer to page 34 for dual standard installations.

Stainless steel models are ready to install out of the box.

## Flush Inset Installation Opening Dimensions

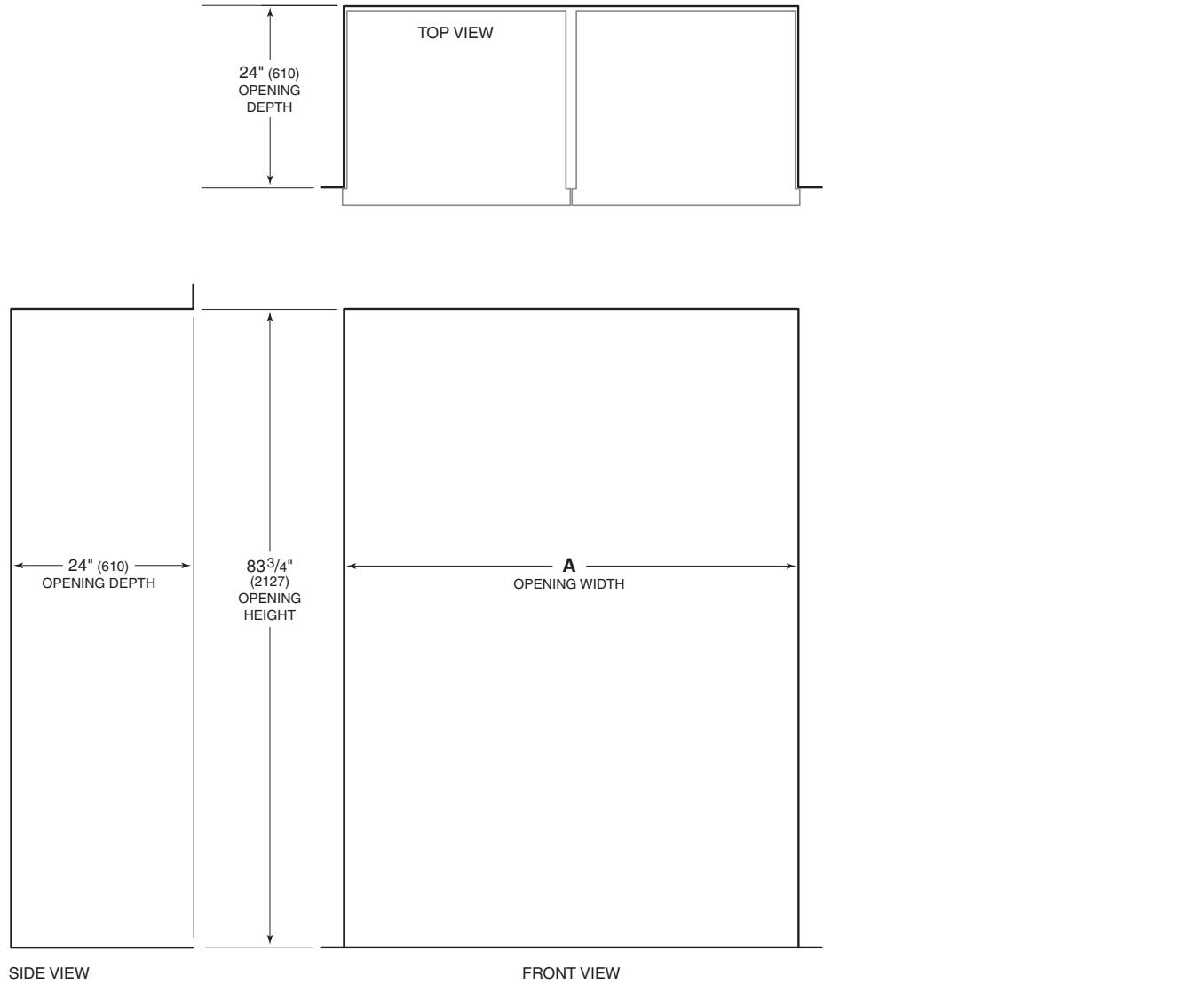


**IMPORTANT NOTE:** Dimensions assume a  $3/4"$  (19) panel thickness.

**IMPORTANT NOTE:** If two units are installed side by side, refer to page 35 for dual flush inset installations.

## Dual Standard Installation Opening Dimensions

Framed, Overlay and Stainless Steel Models

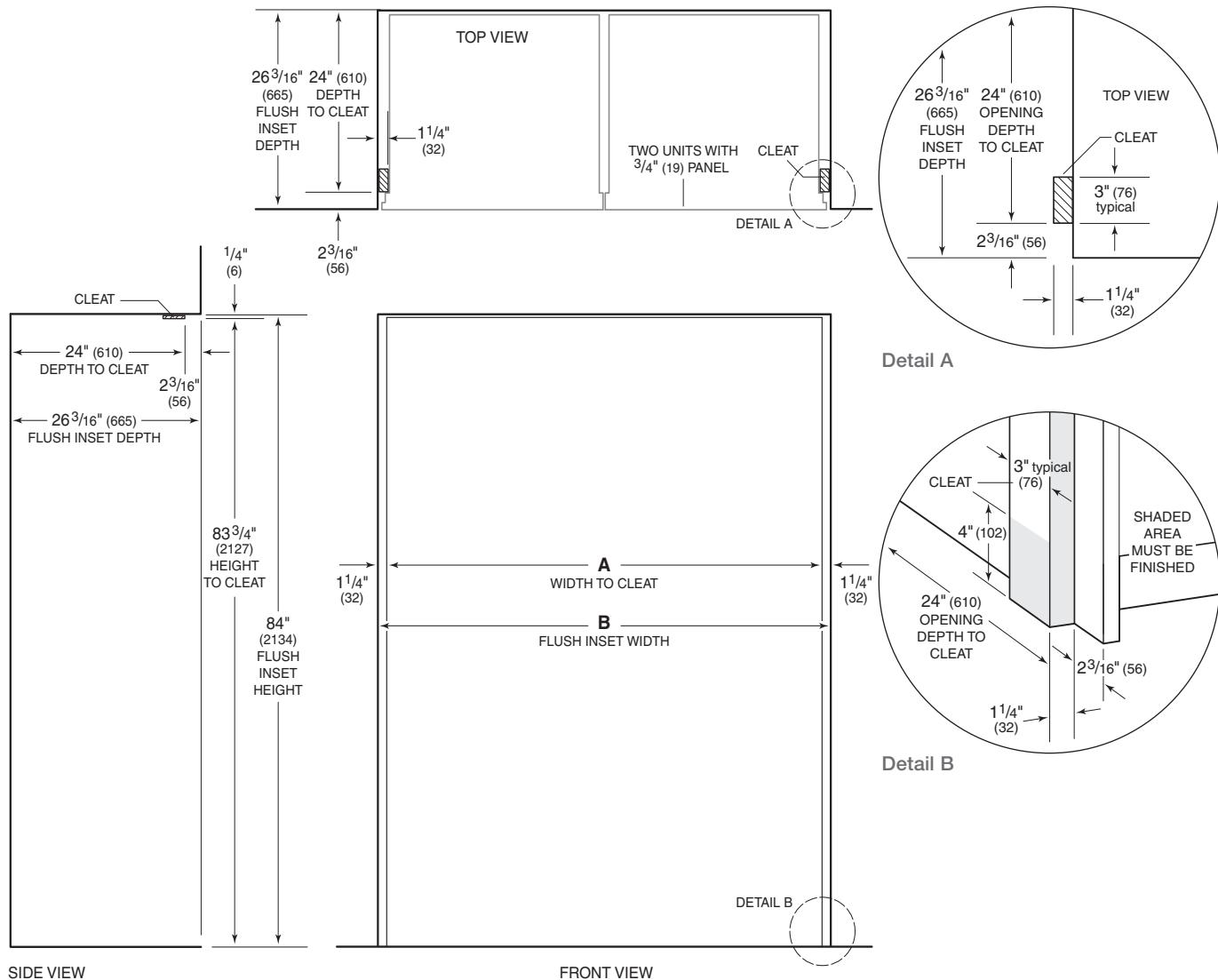


Opening Widths	A
Two 30" (762) Models	59 <sup>3</sup> / <sub>4</sub> " (1518)
Model WS-30 and a 36" (914) Model	65 <sup>3</sup> / <sub>4</sub> " (1670)

**IMPORTANT NOTE:** A dual installation kit will be required for this installation.

Stainless steel models are ready to install out of the box.

## Dual Flush Inset Installation Opening Dimensions



Opening Widths	A	B
Two 30" (762) Models	59 3/4" (1518)	62 1/4" (1581)
Model WS-30 and a 36" (914) Model	65 3/4" (1670)	68 1/2" (1740)

**IMPORTANT NOTE:** Dimensions assume a 3/4" (19) panel thickness. A dual installation kit will be required for this installation.

## Electrical Requirements

For model WS-30, the electrical supply should be located within the shaded area shown in the illustration. Follow the National Electrical Code and local codes and ordinances when installing the receptacle. A separate circuit, servicing only this appliance is required. A ground fault circuit interrupter (GFCI) is not recommended and may cause interruption of operation.

### Electrical Requirements

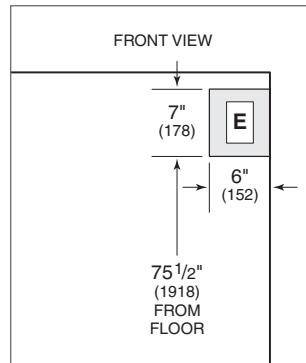
Power Supply	115 V AC, 60 Hz
Circuit Breaker	15 amp
Receptacle	3-prong grounding-type

### CAUTION

The outlet must be checked by a qualified electrician to be sure that it is wired with the correct polarity and is properly grounded.

### WARNING

Do not use an extension cord or two-prong adapter. Electrical ground is required on this appliance. Do not remove the power cord ground prong.



Location of electrical supply.

## Unpack the Unit

Uncrate the unit and inspect for any damages. Remove the wood base and discard the shipping bolts and brackets that hold the wood base to the bottom of the unit. Remove and discard all packing materials.

**IMPORTANT NOTE:** Do not discard the kickplate, anti-tip brackets and hardware. These items will be needed for installation.

Retract the front leveling legs all the way up to allow the unit to be moved into position more easily. You will extend the leveling legs when the unit is in its final position to reduce the possibility of the unit tipping forward.

**IMPORTANT NOTE:** The rear levelers must be in their lowest position in order to push the unit back into the rough opening. Therefore, leveling cannot be completed until the unit is in position.

Remove the drain pan from the base of the unit to avoid damage to the drain pan, and allow for proper placement of the appliance dolly.

### ⚠ WARNING

Be sure to secure the door closed before moving the unit.

## Grille Removal

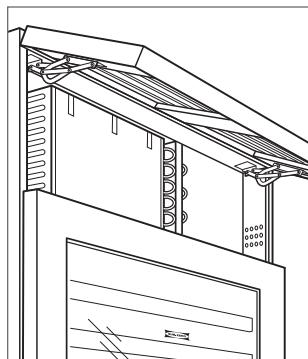
In order to prevent damage to the grille and to access the power cord, the top grille assembly should be removed prior to moving the unit.

To remove the grille assembly, pull out on the bottom edge of the grille and tilt upward. Loosen the back two grille mounting screws and remove the front two grille mounting screws. Refer to the illustrations below. With the grille held firmly, pull forward to remove.

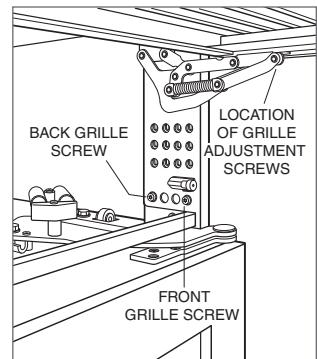
To reinstall the grille, insert the grille into position and be sure that the grille catch tabs are engaged. Reinstall the front two grille screws, then retighten the back two grille screws. Check for proper fit.

## GRILLE HEIGHT ADJUSTMENT

The grille was designed to rest on the upper door hinge in an attempt to minimize the reveal between the top of the door and bottom of the grille. To eliminate potential interference of the grille and hinge, the grille height can be adjusted. Loosen the four grille adjustment screws (two on each side) and adjust the grille height as needed. For screw location, refer to the illustration below.



Grille removal.



Grille mounting screws.

## Anti-Tip Bracket Installation

### ⚠ WARNING

To prevent the unit from tipping forward and provide a stable installation, the unit must be secured in place with the anti-tip brackets shipped with the unit.

**IMPORTANT NOTE:** Placement of the anti-tip brackets is critical to a stable installation. Failure to properly position the anti-tip brackets will prevent them from engaging the unit.

**IMPORTANT NOTE:** The two anti-tip brackets must be installed exactly 24" (610) from the front of the rough opening to the back of the brackets and a minimum of 4" (102) from the sides of the rough opening. This depth will increase to 26<sup>3</sup>/<sub>16</sub>" (665) for a flush inset installation based on 3/4" (19) deep decorative panels. Proper placement will ensure that the anti-tip brackets engage the anti-tip bar at the back of the unit.

### Anti-Tip Hardware Included

2	Anti-tip brackets
12	#12 x 2 <sup>1</sup> / <sub>2</sub> " PH pan HD zinc screws
4	3/8"-16 x 3 <sup>3</sup> / <sub>4</sub> " wedge anchors
12	#12 flat washers
4	#8-18 x 1 <sup>1</sup> / <sub>4</sub> " PH truss HD screws
4	Nylon zip-it wall anchors

**IMPORTANT NOTE:** For either wood or concrete floor applications, if the #12 x 2<sup>1</sup>/<sub>2</sub>" screws do not hit a wall stud or the wall plate in any of the back holes of the brackets, use the provided #8-18 x 1<sup>1</sup>/<sub>4</sub>" PH truss HD screws and #12 flat washers with the nylon zip-it wall anchors.

**IMPORTANT NOTE:** In some installations the subflooring or finished floor may necessitate angling the screws used to fasten the anti-tip brackets to the back wall.

### WOOD FLOOR APPLICATIONS

After properly locating the anti-tip brackets in the rough opening, drill pilot holes 3/16" (5) diameter maximum in the wall studs and/or wall plate. Use the #12 x 2<sup>1</sup>/<sub>2</sub>" PH pan HD zinc screws and #12 flat washers to secure the brackets in place. Be sure that the screws penetrate through the flooring material and into wall studs or wall plate a minimum of 3/4" (19). Refer to the illustration on the following page.

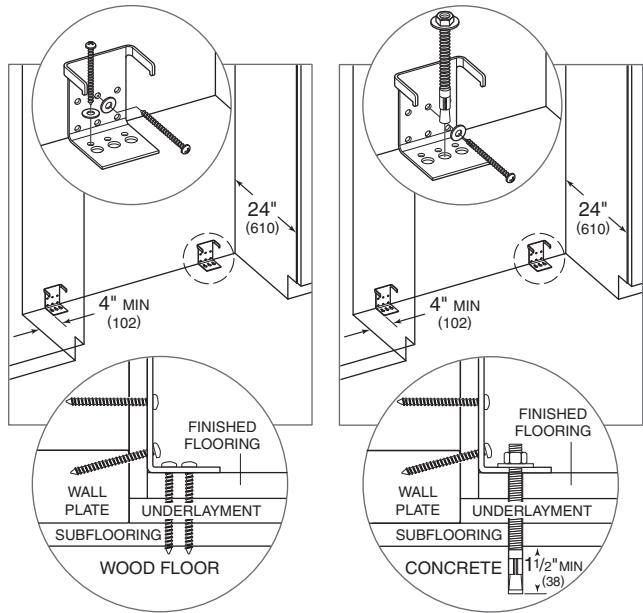
## Anti-Tip Bracket Installation

### CONCRETE FLOOR APPLICATIONS

After properly locating the anti-tip brackets in the rough opening, drill pilot holes  $3/16$ " (5) diameter maximum in the wall studs and/or wall plate. Then drill  $3/8$ " (10) diameter holes into the concrete a minimum of  $1\frac{1}{2}$ " (38) deep. Use the #12 x  $2\frac{1}{2}$ " PH pan HD zinc screws and #12 flat washers to secure the brackets to the wall and use the  $3/8$ "-16 x  $3\frac{3}{4}$ " wedge anchors to secure the brackets to the floor. Be sure that the screws penetrate the wall studs or wall plate a minimum of  $3/4$ " (19). Refer to the illustration below.

#### ⚠ WARNING

Make sure there are no electrical wires or plumbing in the area which the screws could penetrate.



Wood floors.

Concrete floors.

### INSTALL CONCRETE WEDGE ANCHORS:

- 1) Drill a  $3/8$ " (10) diameter hole any depth exceeding the minimum embedment. Clean the hole or continue drilling additional depth to accommodate drill fines. Use a carbide drill bit manufactured within ANSI B94.12-77.
- 2) Assemble the washer and nut flush with the end of anchor to protect threads. Drive the anchor through the material to be fastened until the washer is flush with the surface material.
- 3) Expand the anchor by tightening the nut 3-5 turns past hand-tight position or to 25 foot-pounds of torque.

#### ⚠ CAUTION

Always wear safety glasses and use other necessary protective devices or apparel when installing or working with anchors.

Anchors are not recommended for use in lightweight masonry material such as block or brick, or for use in new concrete which has not had sufficient time to cure. The use of core drills is not recommended to drill holes for the anchors.

## Position the Unit

Use an appliance dolly to move the unit near the rough opening. Model WS-30 is equipped with rollers, so it can be moved into position more easily.

Shut off power to the electrical outlet. Plug the power cord into the 15 amp grounded outlet and roll the unit into position. Be sure that the anti-tip brackets are properly engaged.

**IMPORTANT NOTE:** If possible, keep the door closed until the unit is properly anchored.

**IMPORTANT NOTE:** If for any reason the unit has been laid on its back or side, you must allow the unit to stand upright for a minimum of 24 hours before connecting power.

### CAUTION

Protect any finished flooring before moving the unit into place

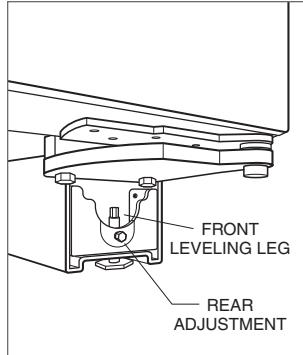
### WARNING

To reduce the possibility of the unit tipping forward, the front leveling legs must be in contact with the floor once the unit is in position.

## Level the Unit

Once the unit is in position, extend the front leveling legs down by turning the legs clockwise to adjust the height. The rear height adjustment can be made from the front of the base. Use a  $3/8"$  socket to adjust the rear rollers. Turn the  $3/8"$  hex bolt clockwise to raise the unit or counter-clockwise to lower it. Refer to the illustration below for location of the rear roller base adjustment.

**IMPORTANT NOTE:** Be sure to reference leveling of the unit to the floor and not to surrounding cabinetry. This could affect the operation of the unit, such as door closing.



Rear roller base adjustment.

## Door Adjustment

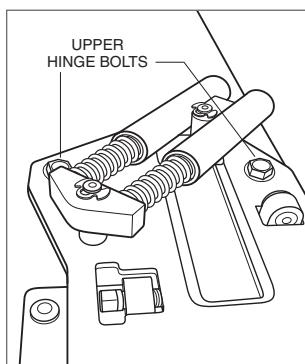
The door of the model WS-30 can be adjusted in three ways: In and out, side to side tilt, and up and down. Regardless of the adjustment being made, start by slightly loosening the two upper hinge bolts on the upper hinge plate using a  $1/2"$  wrench. Refer to the illustration below.

### IN AND OUT ADJUSTMENT

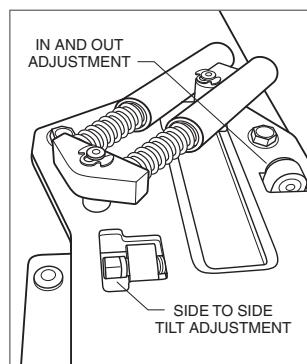
Refer to the illustration for location of the bolt for in and out door adjustment. To adjust a left-hinge door; using a  $5/32"$  allen wrench, turn the bolt clockwise to bring the handle side of the door inward, and counterclockwise to move the handle side of the door outward. Reverse the directions for a right-hinge door.

### SIDE TO SIDE TILT ADJUSTMENT

Refer to the illustration for location of the bolt for side to side tilt door adjustment. To adjust a left-hinge door; using a  $3/8"$  wrench, turn the bolt clockwise to raise the handle side of the door up and counterclockwise to tilt the handle side of the door down. Reverse the directions for a right-hinge door.



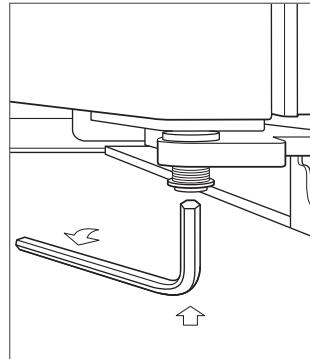
Upper hinge bolts.



Door adjustment bolts.

### DOOR HEIGHT ADJUSTMENT

To adjust a left-hinge door; using a  $1/4"$  allen wrench, turn the bolt clockwise to raise the door and counterclockwise to lower the door. Refer to the illustration below. Reverse the directions for a right-hinge door.



Door height adjustment.

## Anchoring

After door and side panels have been installed, the unit has been leveled and door adjustment completed, anchor the wine storage unit to the opening. This will assure a proper fit and a secure installation.

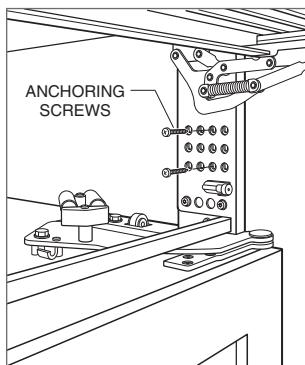
**IMPORTANT NOTE:** Be sure to level and square the unit before anchoring it.

To anchor the unit to cabinetry, open the grille, and install the screws provided through the grille frame into the cabinetry. There are several hole locations provided. Check for proper door clearance by fully opening the door. Refer to the illustration below.

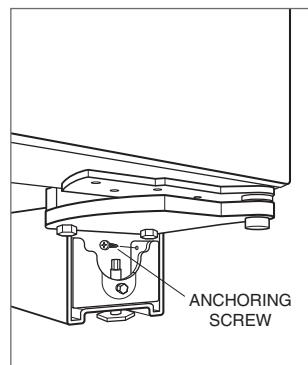
Next, drill a screw through the side hole inside the roller base assembly. There is one on each side. The screw will need to go in at an angle in order to attach properly. In a flush inset application, additional material may be needed behind the cleat to ensure sufficient anchoring.

### ▲ CAUTION

If the screws provided are not suitable for your application, you must provide adequate screws.



Top anchoring.



Bottom anchoring.

## Home Alarm Connections

If a home alarm system is to be installed on the wine storage unit, the connections should be made using the logic supplied with the alarm specifications. Refer to the illustration for the appliance lead locations, and refer to the following for color codes:

- Normally open contacts – white with red stripe wire
- Normally closed contacts – white with blue stripe wire
- Common – gray with white stripe wire

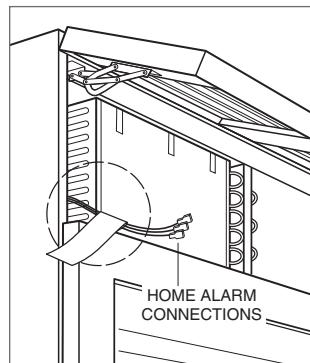
Use the  $1/4"$  (6) spade terminals or wire nuts provided to make the proper wiring connections.

**IMPORTANT NOTE:** If you are not responsible for alarm system connection, this information should be supplied to the home security system contractor.

### ▲ CAUTION

The alarm circuit in the unit is intended as a low-voltage, low-current device only. It should not be used to switch line power.

Any unused terminals should be completely insulated and all wires should be secured away from conductive or moving components.



Home alarm connections.

## Complete the Installation—Model WS-30/S

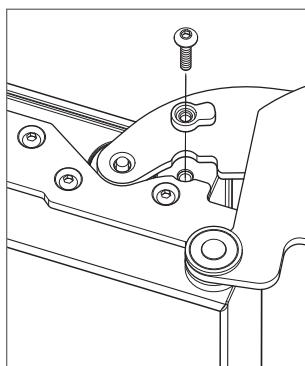
For framed, overlay and flush inset applications, refer to the following pages for front and side panel information.

Before installing the kickplate, be sure to reinstall the drain pan. Once the drain pan is in place, screw the kickplate to brackets attached to the inside surface of each roller base. Reinstall the grille following the instructions on page 37. Turn power back on to the electrical outlet.

### 90° Door Stop

The door of the model WS-30 opens to 110°. A 90° door stop ships with the unit and is located behind the flip-up grille. Additional 90° door stop kits are available through your authorized Sub-Zero dealer. To obtain local dealer information, visit the showroom locator section of our website, [subzero.com](http://subzero.com).

The 90° door stop will be installed in the top hinge of the door. To install, open the door to approximately 90°. At the top of the door, insert the door stop down between the door hinge and the door closer arm. Insert the screw through the door stop and into the door as shown in the illustration below.



90° door stop.

## Panel Installation

Before you install the front panel, refer to panel specifications for framed, overlay or flush inset applications and be sure you are working with the panel design called for in your installation. If your customer has chosen the stainless steel design, the unit has been shipped complete with a finished stainless steel look. It will not be necessary to install a front panel or handle hardware. In your final preparation for stainless steel units, use a stainless steel cleaner to remove any marks. Abrasive cleaners should not be used, as they may scratch the surface.

If your customer has ordered either a framed or overlay model, you will be installing a front panel to give the unit the custom Sub-Zero look.

**IMPORTANT NOTE:** For overlay models, there are two design applications—overlay and flush inset. Be sure to use the correct panel size for your application.

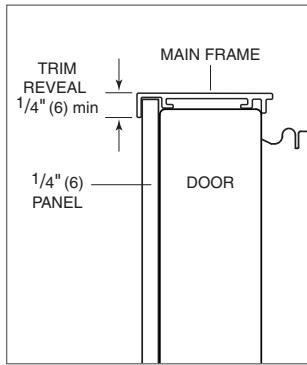
## Framed Panel

If your customer has chosen a framed design application, make sure that the panel you are about to install matches dimensions listed in the framed panel specifications on the following page. Additional panel design information can be found in the Sub-Zero design guide and on our website, [subzero.com](http://subzero.com).

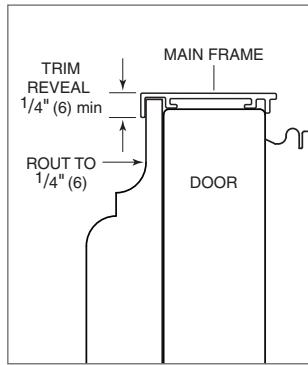
If the thickness of the custom panel is less than a  $1/4"$  (6), back it up with a sheet of shim material to build the total thickness to a  $1/4"$  (6). If the panel is thicker than a  $1/4"$  (6), rout an edge around the panel to achieve a proper fit. Refer to the illustrations.

**IMPORTANT NOTE:** The weight of the framed panel must not exceed 75 lbs (34 kg).

**IMPORTANT NOTE:** For model WS-30, routing, recessing or optional extended handles may be required on raised panels for finger clearance under the handle.



Panels  $1/4"$  (6) thick or less.



Panels thicker than  $1/4"$  (6).

## FRAMED PANEL INSTALLATION

To install the framed panel, the door handle must be removed. To install framed panels, first remove the door trim molding. Insert a screwdriver tip into the top corner slot on the handle side and pop out the trim molding. Refer to the illustration below.

With a Phillips screwdriver, remove the handle. Slide the panel into the frame on the door. With the panel in position, replace the handle. Be sure the panel is inserted completely into the channel for proper fit and alignment.

To reinstall the trim molding, insert the top of the trim molding into the grooves at the top of the door and work downward, snapping the trim molding into the clips on the handle.



Door trim.

## Framed Panel

### RAISED PANEL

With some door panel designs, you may have to rout, recess or use optional extended handles to allow for finger clearance. This is particularly true if your unit has raised panels greater than  $\frac{1}{4}$ " (6) total thickness.

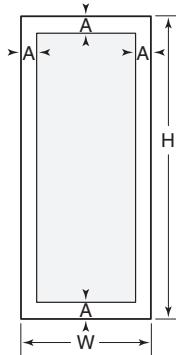
Check the location of offset when you're using specific routing for the grip area only. Refer to the Sub-Zero design guide for a full-scale template of the standard full-length handle and panel. Use this template to lay out your panel design for finger clearance when a standard full-length handle is used.

**IMPORTANT NOTE:** The weight of the framed panel must not exceed 75 lbs (34 kg).

### ⚠ CAUTION

A solid panel cannot be installed over the glass door, as this may cause moisture to form behind the panel.

## Framed Panel Specifications



### Model WS-30

	W	H
DOOR Door Panel	29 $\frac{3}{4}$ " (756)	69 $\frac{9}{16}$ " (1767)
WINDOW Cut-Out	23 $\frac{1}{2}$ " (597)	63 $\frac{5}{16}$ " (1608)
Location		A 3 $\frac{1}{8}$ " (79)

## Overlay Panels

If your customer has chosen an overlay design application, make sure that the panels you are about to install match dimensions listed in the overlay panel specifications on the following page. Additional panel design information can be found in the Sub-Zero wine storage design guide and on our website, subzero.com.

**IMPORTANT NOTE:** The size of the overlay panel is critical. It must fit over the door frame. The weight of the overlay panel must not exceed 75 lbs (34 kg) and the panel must be a minimum of  $5/8"$  (16) thick.

Overlay models are shipped without handle hardware. The cabinet manufacturer or designer will need to provide handle hardware to match the overall decorating scheme.

To install overlay panels, first remove the door trim molding. Insert a screwdriver tip into the top corner slot on the handle side and pop out the trim molding. Refer to the illustration on page 44. Remove the screws and frame.

Sub-Zero allows a  $1/4"$  (6) space to slide the backing material into place in the frame. If your material is thicker than a  $1/4"$  (6), either rout an edge around the panel to get a proper fit or mount the decorative overlay panel on a sheet of  $1/4"$  (6) thick material and insert the backing material into the channel.

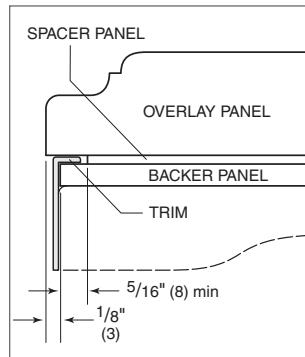
You must allow for  $.10"$  (3) space between the backer board and the decorative panel, so the panel will slide easily into the door frame.

The illustrations below provide a cross section view of the three panel assembly showing placement of the trim and a rear view of the three panel assembly with critical dimensions, standard for all models.

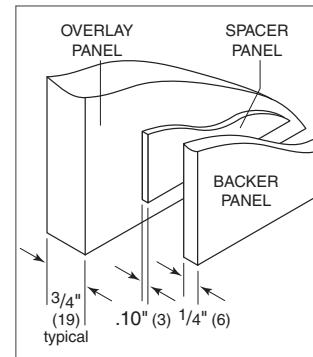
Install the handle hardware before inserting the panel. We recommend a larger D-style pull. The use of a small, one-piece knob is not recommended. If you use screws with thick heads, you will need to countersink the screws into the backer panel before sliding the assembly into place.

Slide the panel into the frame on the door. With the panel in position, replace the frame end. Be sure the panel is inserted completely into the channel for proper fit and alignment.

To reinstall the trim molding, insert the top of the trim molding into the grooves at the top of the door and work downward, snapping the trim molding into the clips on the frame.



Panel assembly cross section.



Panel assembly rear view.

## Overlay Panels

### GRILLE PANEL ASSEMBLY

Remove the grille panel assembly as described on page 37. Remove the top two corner screws and pull away the top frame. Slide the panel into position in the grille frame. If you are using a grille panel  $1/4"$  (6) or thinner, you will need to install a filler.

Reattach the top frame by reinstalling the two top corner screws. Install the grille panel assembly onto the unit, by reversing the grille removal procedure outlined on page 37.

Refer to specifications for overlay grille panels and the illustrations on the previous page for the exact sizing of all three panels.

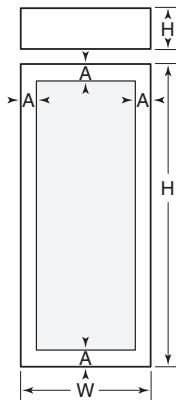
#### ⚠ CAUTION

**Do not exceed the panel dimensions listed for the appropriate overlay grille panel you are specifying. The overlay decorative panel cannot be any larger or it may restrict the air flow to the compressor area and cause problems with the operation of the Sub-Zero unit.**

#### ⚠ CAUTION

**A solid panel cannot be installed over the glass door, as this may cause moisture to form behind the panel.**

## Overlay Panel Specifications



### Model WS-30

	<b>W</b>	<b>H</b>
<b>DOOR</b>		
Overlay Panel	30" (762)	$69\frac{3}{4}"$ (1772)
Spacer Panel	$29\frac{1}{8}"$ (740)	$68\frac{15}{16}"$ (1751)
Backer Panel	$29\frac{3}{4}"$ (756)	$69\frac{9}{16}"$ (1767)
<b>GRILLE</b>	<b>W</b>	<b>H</b>
Overlay Panel	30" (762)	$9\frac{1}{4}"$ (235)
Spacer Panel	$29\frac{1}{8}"$ (740)	$8\frac{5}{16}"$ (211)
Backer Panel	$29\frac{3}{4}"$ (756)	$8\frac{15}{16}"$ (227)
<b>WINDOW</b>	<b>W</b>	<b>H</b>
Cut-Out	$23\frac{1}{2}"$ (597)	$63\frac{1}{4}"$ (1607)
Location		$3\frac{1}{4}"$ (83)

Grille panel dimensions listed are for a standard 84" (2134) overall height of the unit. For an 83" (2108) overall height, subtract 1" (25) from grille panel height dimensions. For an 88" (2235) overall height, add 4" (102) to height dimensions. Width dimensions do not vary.

## Flush Inset Panels

If your customer has chosen the flush inset panel application, make sure that the panels you are about to install match dimensions listed in the flush inset panel specifications on the following page. Additional panel design information can be found in the Sub-Zero design guide and on our website, [subzero.com](http://subzero.com).

**IMPORTANT NOTE:** The size of the flush inset panel is critical. It must fit over the door frame. The weight of the overlay panel must not exceed 75 lbs (34 kg) and the panel must be a minimum of  $5/8"$  (16) thick.

Overlay models are shipped without handle hardware. The cabinet manufacturer or designer will provide handle hardware at the job site to match the overall decorating scheme.

To install flush inset panels, first remove the door trim molding. Insert a screwdriver tip into the top corner slot on the handle side and pop out the trim molding. Refer to the illustration on page 44. Remove the screws and frame.

Sub-Zero allows a  $1/4"$  (6) space to slide the backing material into place in the frame. If your material is thicker than a  $1/4"$  (6), either rout an edge around the panel to get a proper fit or mount the decorative flush inset panel on a sheet of  $1/4"$  (6) thick material and insert the backing material into the channel.

You must allow for  $0.10"$  (3) space between the backer board and the decorative panel, so the panel will slide easily into the door frame.

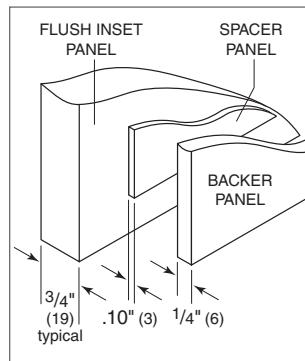
The illustration below provides a rear view of the three-panel assembly with critical dimensions.

**IMPORTANT NOTE:** With the panels installed,  $1/2"$  (13) minimum reveals must be kept on all sides to ensure proper door opening and sufficient cooling of the unit.

Install the handle hardware before inserting the panel. We recommend larger D-style pulls. The use of small, one-piece knobs is not recommended. If you use screws with thick heads, you will need to countersink the screws into the backer panel before sliding the assembly into place.

Slide the panel into the frame on the door. With the panel in position, replace the frame end. Be sure the panel is inserted completely into the channel for proper fit and alignment.

To reinstall the trim molding on side-by-side models and the upper door for over-and-under models, insert the top of the trim molding into the grooves at the top of the door and work downward, snapping the trim molding into the clips on the frame.



Three-panel assembly.

## Flush Inset Panels

Remove the grille panel assembly as described on page 37. Remove the top two corner screws and pull away the top frame. Slide the panel into position in the grille frame. If you are using a grille panel  $1/4"$  (6) or thinner, you will need to install a filler.

Reattach the top frame by reinstalling the two top corner screws. Install the grille panel assembly onto the unit, by reversing the grille removal procedure outlined on page 37.

Refer to specifications for flush inset grille panels and the illustrations on the previous page for the exact sizing of all three panels.

### CAUTION

Do not exceed the panel dimensions listed for the appropriate flush inset grille panel you are specifying. The flush inset decorative panel cannot be any larger or it may restrict the air flow to the compressor area and cause problems with the operation of the Sub-Zero unit.

## Flush Inset Panel Specifications



### Model WS-30

	W	H
<b>DOOR</b>		
Flush Inset Panel	31" (787)	$69\frac{3}{4}"$ (1772)
Spacer Panel	$29\frac{1}{8}"$ (740)	$68\frac{15}{16}"$ (1751)
Backer Panel	$29\frac{3}{4}"$ (756)	$69\frac{9}{16}"$ (1767)
<b>GRILLE</b>	W	H
Flush Inset Panel	31" (787)	$9\frac{1}{4}"$ (235)
Spacer Panel	$29\frac{1}{8}"$ (740)	$8\frac{5}{16}"$ (211)
Backer Panel	$29\frac{3}{4}"$ (756)	$8\frac{15}{16}"$ (227)
<b>WINDOW</b>	W	H
Cut-Out	$23\frac{1}{2}"$ (597)	$62\frac{1}{4}"$ (1581)
Location		$3\frac{3}{4}"$ (95)

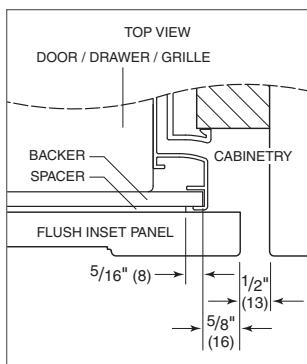
Grille panel dimensions listed are for a standard 84" (2134) overall height of the unit. For an 83" (2108) overall height, subtract 1" (25) from grille panel height dimensions. For an 88" (2235) overall height, add 4" (102) to height dimensions. Width dimensions do not vary.

## Flush Inset Panel

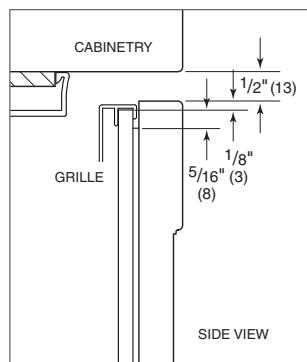
Illustrations A–D provide panel offsets and reveals for model WS-30 in a flush inset application. Refer to the chart below for reference to the illustrations.

For additional information on panel reveals, visit the specification library section of our website, [subzerotrade.com](http://subzerotrade.com).

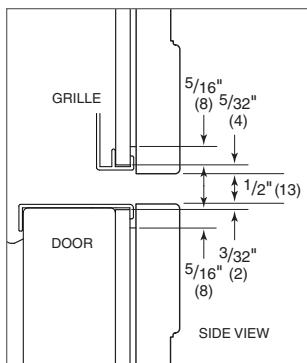
Panel Offsets	Illus.
<b>MODEL WS-30</b>	
Door / Grille Sides	A
Grille Top	B
Grille Bottom / Door Top	C
Door Bottom	D



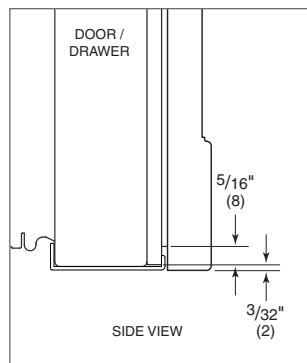
Illus. A



Illus. B



Illus. C



Illus. D

## Dual Installations

When two models WS-30 or a model WS-30 and built-in unit are installed side by side, a dual installation kit may be required. Contact your authorized Sub-Zero dealer for the proper components and installation instructions. For questions relative to the installation, call Sub-Zero at 800-222-7820. To obtain local dealer information, visit the showroom locator section of our website, [subzero.com](http://subzero.com).

### DUAL STANDARD INSTALLATIONS

Two framed, overlay or stainless steel units may be placed side by side in a dual installation. Some dual standard installations will require a dual installation kit, available through your authorized Sub-Zero dealer.

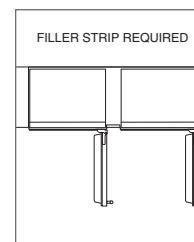
A custom filler strip can be used in between two units in a framed, overlay or stainless steel design application. It is recommended that the filler strip be at least 2" (51) wide, to prevent condensation between the units. Be sure to add the filler strip width to your rough opening width.

Dual installations without a filler strip can only be accomplished using two units with opposite hinges as shown in illustration A below. The dual installations shown in illustrations B and C require a filler strip.

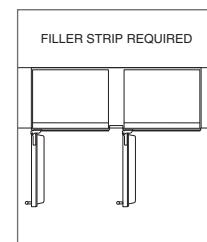
**IMPORTANT NOTE:** For the application shown in illustration A, a dual installation accessory kit is required.



Illus. A



Illus. B



Illus. C

## Dual Installations

### DUAL FLUSH INSET INSTALLATIONS

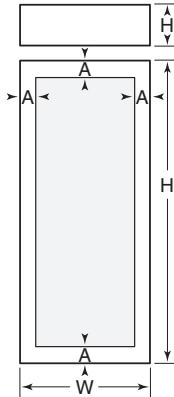
Installing two models WS-30 or a model WS-30 and built-in unit side by side in a flush inset application will require adjustments to the dimensions of your finished rough opening, panel sizes and panel offsets. It will also require a dual installation kit, available through your authorized Sub-Zero dealer.

Dual installations without a filler strip can only be accomplished using two units with opposite hinges as shown in illustration A below. The dual installations shown in illustrations B and C require a filler strip. Illustration A is the only application that will accommodate the dual wide grille.

**IMPORTANT NOTE:** The application shown in illustration A can only be achieved by installing dual flush inset panels. Failure to install dual flush inset panels will cause the handle side of the panels to collide when closing. In this application a dual installation accessory kit is also required.

Dual flush inset panels and dual installation kits are available through your authorized Sub-Zero dealer. Refer to the illustration and chart for dual flush inset panel specifications.

## Flush Inset Panels—Dual Installation



### Model WS-30

	<b>W</b>	<b>H</b>
<b>DOOR</b>		
Flush Inset Panel	30 <sup>1</sup> / <sub>2</sub> " (775)	69 <sup>3</sup> / <sub>4</sub> " (1772)
Spacer Panel	29 <sup>1</sup> / <sub>8</sub> " (740)	68 <sup>15</sup> / <sub>16</sub> " (1751)
Backer Panel	29 <sup>3</sup> / <sub>4</sub> " (756)	69 <sup>9</sup> / <sub>16</sub> " (1767)
<b>GRILLE</b>	<b>W</b>	<b>H</b>
Flush Inset Panel	30 <sup>1</sup> / <sub>2</sub> " (775)	9 <sup>1</sup> / <sub>4</sub> " (235)
Spacer Panel	29 <sup>1</sup> / <sub>8</sub> " (740)	8 <sup>5</sup> / <sub>16</sub> " (211)
Backer Panel	29 <sup>3</sup> / <sub>4</sub> " (756)	8 <sup>15</sup> / <sub>16</sub> " (227)
<b>WINDOW</b>	<b>W</b>	<b>H</b>
Cut-Out	23" (584)	62 <sup>1</sup> / <sub>4</sub> " (1581)
Location		3 <sup>3</sup> / <sub>4</sub> " (95)

Grille panel dimensions listed are for a standard 84" (2134) overall height of the unit. For an 83" (2108) overall height, subtract 1" (25) from grille panel height dimensions. For an 88" (2235) overall height, add 4" (102) to height dimensions. Width dimensions do not vary.

## Flush Inset Panels—Dual Installation

When installing two models WS-30 or a model WS-30 and built-in unit side by side in a flush inset application, you must decrease the width of the decorative flush inset panels by  $1/2"$ . Adjustments to the panel offsets will also need to be made. These adjustments are needed to achieve a proper fit and to ensure the panels do not collide when closing. Panel dimensions in the chart below have been adjusted to reflect the decrease in panel dimensions.

**IMPORTANT NOTE:** If a filler strip is not used, dual installations can only be accomplished using two units with opposite hinges.

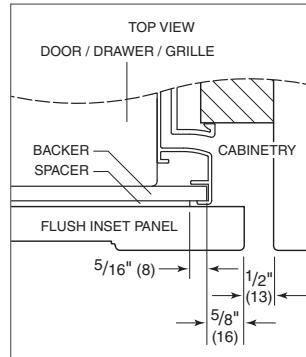
Illustrations A–E provide panel offsets and reveals for model WS-30 in a flush inset application. Refer to the chart below for reference to the illustrations. All reveals are  $1/2"$  (13) unless otherwise specified.

For additional information on panel reveals, visit the specification library section of our website, [subzerotrade.com](http://subzerotrade.com).

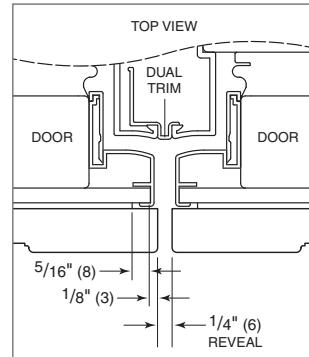
### CAUTION

Do not exceed the flush inset decorative panel dimensions. Exceeding dimensions could cause damage to the panels and the Sub-Zero unit.

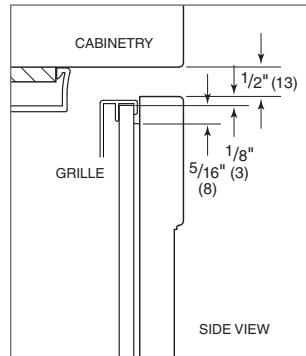
Panel Offsets	Illus.
<b>WS-30</b>	
Doors (hinge) / Grille Sides	A
Doors (handle) Sides	B
Grille Top	C
Grille Bottom / Door Top	D
Door Bottom	E



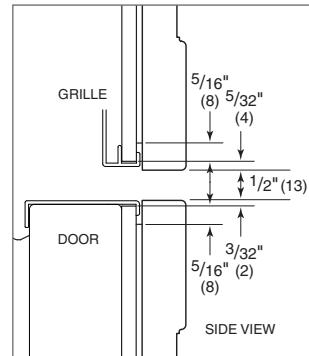
Illus. A



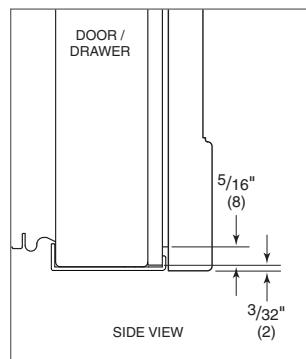
Illus. B



Illus. C



Illus. D



Illus. E

## Side Panels

**IMPORTANT NOTE:** Side panels will need to be installed before the unit is placed in its final position.

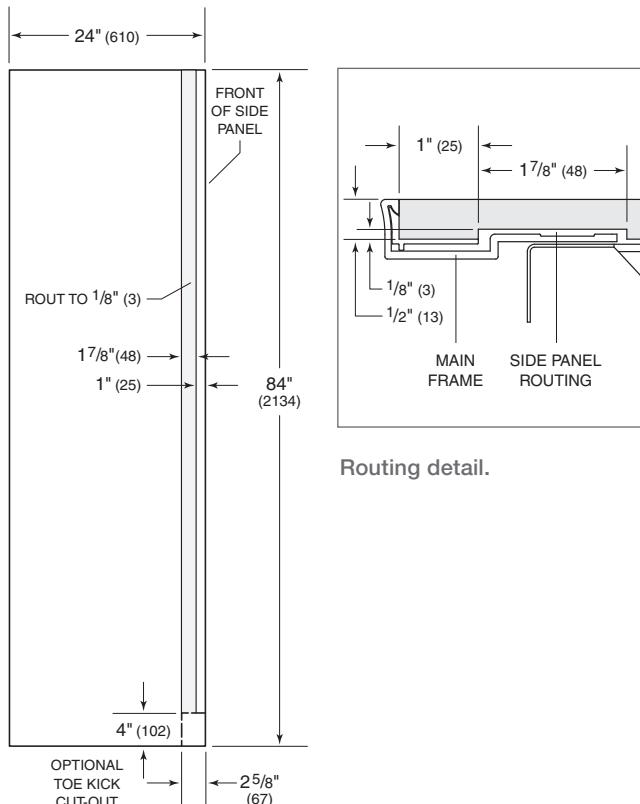
When installing a model WS-30 with a custom side panel, an accessory kit is required. Stainless steel and white enamel side panels are available through your authorized Sub-Zero dealer. Refer to instructions included with the side panel kit when installing these side panels. To obtain local dealer information, visit the showroom locator section of our website, [subzero.com](http://subzero.com).

**IMPORTANT NOTE:** The use of side panels may change the width of your rough opening.

## CUSTOM SIDE PANEL INSTALLATION

The custom side panel will need to be a minimum of 24" (610) deep and 1/2" (13) thick. Refer to the custom side panel dimensions illustration for additional specifications. Routing will be necessary for the side panel to fit flush against the side of the unit. Refer also to the routing detail illustration.

**IMPORTANT NOTE:** The overall height on the side panel will vary with the height of the grille being used. Make sure you know your finished height before cutting any panels.



Custom side panel dimensions.

Routing detail.

## Complete the Installation

For framed, overlay and flush inset applications, follow these steps to complete the installation. Before installing the kickplate, be sure to reinstall the drain pan. Once the drain pan is in place, screw the kickplate the to brackets attached to the inside surface of each roller base. Reinstall the grille following the instructions on page 37. Turn power back on to the electrical outlet.

## Installation Checklist

The importance of the installation of the Sub-Zero wine storage unit cannot be overemphasized. Proper installation is the responsibility of the selling dealer or installer.

**IMPORTANT NOTE:** To ensure a safe and proper installation, the following checklist should be completed by the installer to ensure that no part of the installation has been overlooked.

Any questions or problems regarding the installation should be directed to your authorized Sub-Zero dealer or Sub-Zero customer service at 800-222-7820. You may also check the contact & support section of our website, [subzero.com](http://subzero.com).

### INSTALLATION CHECKLIST

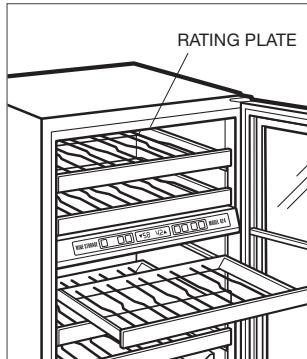
- Has the packing material been removed?
- Turn the unit on. Is it operating properly?  
If not, is the unit plugged in? Is the control turned on?
- Have the anti-tip brackets been installed securely and properly engaging the unit?
- Is the unit leveled properly on a solid, level floor?  
Is the kickplate installed?
- Has the drain pan been installed properly (WS-30)?
- Are panels attached securely and properly aligned?
- Has the door been aligned for proper appearance and operation?
- Has the unit been properly anchored to the opening?
- Does the 90° door stop need to be installed?
- Does your customer understand the unit's operation?  
Have you given your customer the warranty package?
- Have any installation or service problems been noted on the product registration card? Has the registration card been mailed in?
- Has the stainless steel door been inspected for any imperfections? This is to be done by the dealer or installer with the customer upon completion of the installation. Stainless steel panels are covered by a limited 60-day parts and labor warranty for cosmetic defects.

## Service Information

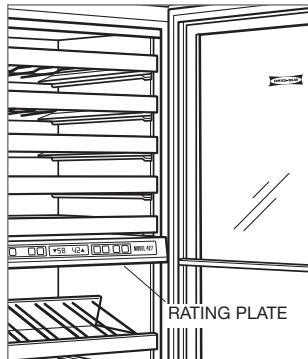
If service is necessary, maintain the quality built into your Sub-Zero unit by calling a Sub-Zero authorized service center.

To obtain the name and number of a Sub-Zero authorized service center, check the contact & support section of our website, [subzero.com](http://subzero.com) or call Sub-Zero customer service at 800-222-7820.

When calling for service, you will need the model and serial number of your unit. Both numbers are listed on the product rating plate. For models 424 and 424FS, the rating plate is located on the underside of the top wall. For models 427, 427R and WS-30, it is attached to the underside of the control panel. Refer to the illustrations below.



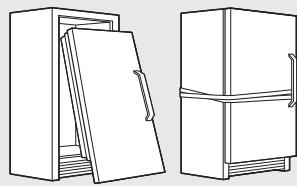
Models 424 and 424FS.



Models 427, 427R and WS-30.

### ⚠️ WARNING

If you are storing or disposing of your old refrigerator or freezer, please do it safely. Remove the doors or tightly secure the doors closed. Child entrapment accidents can be tragic.



The information and images in this guide are the copyright property of Sub-Zero, Inc. Neither this guide nor any information or images contained herein may be copied or used in whole or in part without the express written permission of Sub-Zero, Inc. ©Sub-Zero, Inc. all rights reserved.

Wolf, Wolf & Design, Wolf Gourmet, W & Design and the color red as applied to knobs are registered trademarks and service marks of Wolf Appliance, Inc. Sub-Zero, Sub-Zero & Design, Dual Refrigeration, Constant Care and The Living Kitchen are registered trademarks and service marks of Sub-Zero, Inc. (collectively, the "Company Marks.") All other trademarks or registered trademarks are property of their respective owners in the United States and other countries.





SUB-ZERO, INC. P. O. BOX 44848 MADISON, WI 53744 SUBZERO.COM 800.222.7820

7011714 REV-A

7/2010

